CONOVER, JOYCE MAE. Teacher Participation Roles in British Primary Classrooms. (1975) Directed by: Dr. Mary Elizabeth Keister. Pp. 139.

The purpose of this study was to observe British Primary classrooms representative of the new informal British approach, specifically with regard to 1) the teacher participation roles in defined areas of Provisioning, Facilitation, Flexibility/Mobility Tolerance, and Open Stances, and 2) the Student Engagement and Traditional/Non-Traditional Activity Focus present there.

Seven hypotheses were generated:

1) Student Engagement percentages will be high.
2) No significant differences in Activity Focus (between Traditional and Non-Traditional Activities) will be found.
3) High levels of Provisioning, Facilitation, Flexibility/Mobility Tolerance, and Open Stances will be found.
4) Provisioning, Facilitation, Flexibility/Mobility Tolerance and Open Stances will be highly interactive and show high correlations.
5) Provisioning alone will not show a significant correlation with Student Engagement.
6) Facilitation and Flexibility/Mobility Tolerance, in that order, will correlate significantly with Student Engagement.
7) The higher the correlation between Provisioning, Facilitation, Flexibility/Mobility Tolerance, and Open Stances and the greater the incidence level of these variables, the higher the Student Engagement level will be.

Observations were made via three observer rating scales in 44 British classrooms. Instruments used were: 1) Classroom/Teacher Rating Scale - judging teacher participation role variables of Provisioning, Facilitation, Flexibility/Mobility Tolerance; 2) Student Engagement and Activity Focus Rating Scale - judging the on-task, attending behavior of the children in the classroom; 3) Teacher Stance Rating Scale - judging the teacher's body stances via Goffman's non-verbal body language cues.

Basic statistical analysis was handled by descriptive statistics and Kendall's tau scores. Statistical significance was set at $p < .05$ level given size and composition of sample.

All hypotheses but Hypothesis 6 were supported. Flexibility/ Mobility Tolerance showed a stronger significant correlation with Student Engagement than Facilitation, thus reversing predicted order of Hypothesis 6. Hypothesis 6 was partly supported in that both Facilitation and Flexibility/Mobility Tolerance did correlate significantly.

Non-predicted findings indicated that the strongest correlation with Student Engagement was a Non-Traditional Activity Focus.

TEACHER PARTICIPATION ROLES IN BRITISH PRIMARY CLASSROOMS

by

Joyce Mae Conover

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Approved by

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APPROVAL PAGE

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CHAPTER I

INTRODUCTION

Introductory Statement of the Problem

On this side of the Atlantic much has been written about the modern informal British Primary and Infant Schools. Most of these descriptions have been by American educators who in the late 1960's "discovered" this evolving British phenomena and began making pilgrimages to England to see these clasrooms for themselves. Many pilgrims returned to attempt implementation within the American schools of some of the practices and ideals they witnessed in England. These rather delightful narratives by obviously impressed educators have tended to create a halo effect and "hero" image for the new British schools. This image has caused polarized reactions and a general defense of these practices by their proponents but consequently little systematic evaluation of the classrooms in question. This is unfortunate, because the British innovations have proved effective for the culture, time, and participants where they are. The task for Americans must not be how to move the British system unqualifiedly to America but how to evaluate the differential, critical components comprising the British experience and ascertain their implications, interactions, and relevance to the American educational experience.

This present study was an attempt to be part of that necessary search for clarity of process, operational definitions, and examination

of components within the new style British schools. It was accomplished through observations in these British classrooms and focused its attention upon the participation of the teacher as a key to system differentiation and effectiveness.

American Research

The process of operationally defining components of the informal classroom and the underlying structure began in America by a series of research and dissertation efforts: Chittendon and Bussis of Educational Testing Service in cooperation with Educational Development Center (1970, 1971), Resnick et al., of University of Pittsburgh Learning and Research Development Center (1970, 1971), Nasca of State University of New York, Brockport (1971, 1972), Patton (1973), Harvard students including Barth (1968, 1969, 1970, 1971), Rathbone (1968, 1970, 1971), Meisels (1973), Eisner (1969), and most notably for the progress of this research, Walberg and Thomas (1971, 1972), followed by Evans (1971) all of Educational Development Center.

Several of these studies have built on previous efforts and thus explored and defined over a relatively short time period a series of characteristics which appear to relate to the classroom structure in question and to the teacher's role and participation within that structure (Evans 1971, Eisner 1969, Barth 1970, Rathbone 1971, Chittendon and Bussis 1970, Meisels 1973, Resnick 1971, Walberg and Thomas 1971). The current study relates directly to these primary efforts and makes extensive use, with great appreciation, of the work already accomplished in this area.

British Research

It should be noted that with regard to researching a British system, British evaluative research in the area should be a prime concern and interest. However, in this case, the British educational community is not empirically oriented in their evaluations. Aside from a minimum of research directed at the classroom itself and commissioned for the Plowden Report (Central Advisor Council for Ed., Vol. 2, 1967) and the work of Morris (1966) and Dorothy Gardner (1965, 1966) most evaluative work has been narrative descriptions by the practitioners themselves (Marshall 1963, Mason 1970, Marsh 1970, Taylor 1971, Goddard 1969, and others) or by those who have served in advisory or training roles within the developing programs (Brearley 1966, 1967, 1969, 1970, Clegg 1966, 1971, Yardley 1970, Blackie 1971) and other advisory bodies producing materials for teacher instruction or classroom use (The Schools Council 1966a, 1966b, 1969, The Nuffield Foundation 1967a, 1967b, 1972, and the Department of Education and Sciences 1952, 1953, 1959, 1966, 1967a, 1967b, 1968, 1969, 1970). Some of this material is illuminating of the overall philosophy of British Schools or descriptive of specific area interests. However, it is only partially helpful in defining and isolating components for evaluating the total interactive process. Indeed, there is an evaluative dilemma: some feel measurement instruments designed for measuring (both achievement within and the achievement of) a traditionally oriented educational system are grossly inadequate and unfair for measuring the results and effects of this new informal approach (Blackie 1971, Brearly 1969, Plowden 1967).

However, the difficulty of evaluating these classrooms by standard means and the barriers of implied philosophical differences impeding comparative evaluation are only part of the lack of pin point empirical evidence inside Britain of its new informal approaches.

Much of this emphasis on more subjective or practical evaluation is both reflected in and a reflection of the British cultural acceptance of the natural organic evolution of educational programs. In Britian systems are given ample time and room for local, individual "form fitting" at the grassroots levels. Teachers structure their classes to meet the needs of their particular children's learning processes. The changes which occur, the successes and failures, are not reviewed as reason for widespread tampering with the process but only as individual shifts to take advantage of learning through the experience. Changes in the schools were not dictated by higher administrative authorities and forced into success or failure definitions within confined time frames. Perhaps this is a function of being a culture which has itself evolved over hundreds of years and a land where hedgerows planted before William the Conqueror still separate properties. Perhaps it is the result of the allowance of autonomy to Head Teachers and individual schools to "be their own school" within a rather broad framework. Whatever the reason, it should be understood that this study respects the British view of evaluation and unhurried change. In order to be relevant to American publics and needs, however, primary use was made of American definitions and research base in structuring this study.

Background Information

For those without a background in the history and evolution of the modern informal British schools, a short sketch is provided in Appendix A. A series of definitions of terms and language useage unfamiliar to American publics are located in Appendix B. A diagram of the organizational structure of the state supported (Local Education Authority) schools is contained in Appendix C.

For clarity a short description of the philosophy of the current primary education in Britain will be presented here.

Perhaps the most rapid introduction to the philosophy of the modern informal classroom would be what the British teach their prospective teachers. The handbook and syllabus provided all beginning education students at Berkshire College of Education in Reading, England has a quotation from Monica Baldwin, director of the First School Curriculum and Teaching Area (First School being akin to primary school in this case):

> The task of the Primary School teachers might well be summarized as follows:
> TO LAY A SURE FOUNDATION FOR ALL FUTURE SCHOOLING AND TO ESTABLISH SOUND ATTITUDES TO LEARNING by
> 1) ensuring a smooth transition from the home to the school environment,
> 2) fostering happy personal relationships at all levels (heads/staff/pupils/parents/etc.),
> 3) enabling each child to develop personal qualities of self-reliance, independence of thought, initiative, etc.,
> 4) extending each child's experience and knowledge of the world by:
> a) assisting him to a closer understanding of his immediate environment,
> b) giving him glimpses of the wider world in which he lives,

5) helping children to acquire a love of books and mastery of the skill of reading plus an understanding of some fundamental relationships in mathematics and the skills and techniques needed for the various forms of recording,
6) enriching aesthetic experiences through literature, music, art, drama, etc.,
7) extending vocabulary and language skills by every means available,
8) providing opportunities for healthy physical development and the practice of physical skills through freedom of movement,
9) enabling the children to establish the beginnings of self-discipline by guiding them in the exercise of choice. (Baldwin 1974, p. 10)

This handbook further defines the way these objectives are accomplished via a classroom organization which provides for three necessary areas of learning: 1) practice learning, 2) systematic learning, 3) incidental, experiential learning. In all areas of learning the teacher

> acts as stage manager, setting ideas imaginatively so the children will work them out ... not missing chances to practice various skills arising out of a child's interest as these opportunities are the most meaningful, ... She is also in charge of props, providing material or knowing where to obtain it... and planning the day so that teacher time with groups is sufficient for consolidation of points to be made and time with individuals is effective in providing specific interaction, aid, and encouragement. (Baldwin 1974, pp. 11-13)

Overall, however, children are "the directors,...(and) pursue the activities in the way they choose within the framework the teacher has constructed" (Baldwin, 1974, p. 13).

An important philosophical and practical part of this system is the integrated day approach which was described in Brown and Precious (1968) as:

> a school day which is combined into a whole and has a minimum timetable ... The natural flow of activity, imagination, language, thought and learning which is in itself a continuous process is not interrupted by artificial breaks such as the conventional playtime or subject barriers. The child is encouraged to committ himself completely to the work in hand which he has chosen ... As he works, problems common to various subjects will arise but

> within the integrated framework he can make easy transition between any areas of learning... Subject barriers are extraneous. No limit is set to the exploration involved, which may go off at any tangent into any sphere of learning...the environment is all-important. It must be so well planned, challenging, interesting and attractive that the child wants to become involved,... to satisfy his curiosity and to learn (Brown and Precious, 1968.

General philosophical statements of import can also be found in the Plowden Report (Central Advisory Council, 1967):

> A school is not merely a teaching shop... It is a community in which children learn to live first and foremost as children and not as future adults...(it) set(s) out deliberately to devise the right environment for children, to allow them to be themselves and to develop in a way and at a pace appropriate to them...It lays stress on individual discovery, on first hand experience and on opportunities for creative work. It insists that knowledge does not fall into neat separate compartments and that work and play are not opposite but complementary (Plowden 1967, pg. 187)

> "...the best preparation for being a happy and useful man or woman is to live fully as a child. (Plowden 1967, pg. 188)

> "... older virtues.. of neatness, accuracy, care and perserverance and sheer knowledge... are genuine virtues and an education which does not foster them is faulty...the modern approach can, and when properly understood does lay a much firmer foundation for their development...More in the interests of the children...Decisions about the situations that ought to be contrived...must be left to individual schools, teachers, and parents. What must be ensured is that they are made from best knowledge and are not simply dictated by habit or convention." (Plowden, 1967, p. 188)

Typically then, there is emphasis on flexibility of time and structure and on the individual development of each child. The learning process is paramount with products and evaluation considered part of the on-going growth of the child and his learning and not as ends in themselves.

Examination of the Issues

British informal schools are an excellent example of a teacher-devised-and-evolved method of handling the education of children. As

such it is important to find the distinguishing as well as the common effective features that occurr in all good classrooms.

Since commonality does exist between good classrooms across classroom styles, examination of the classroom experience itself was a beginning. It became apparent from descriptions of classroom process examination (Good and Brophy 1972a, 1972b, 1973, Grant and Hennings 1969, 1971, Gallagher, et al. 1970, Smith, B. O. 1970, Flanders 1965, 1970, Tuckman, et al. 1973, Galloway 1962, 1968a, 1968b, 1970, Bellock, et al 1966, 1968, Stallings et al 1970, Silberman, H. 1963, Resnick, 1970, 1971a, 1971b, 1972, Beddle and Adams 1967, 1970, Cornell et al 1952, Cogan 1956, 1963, Millmore and Resnick 1971, Perkins 1964) and from observation in classrooms that within various teaching styles and classroom processes distinctions began to appear. These distinctions centered around the teacher, the manner in which the teacher participated in the learning experience of the child, and the expectations and philosophy the teacher had about the child's participation in his own learning (Bussis and Chittendon 1970, Blackie 1971, Plowden 1967, Brearly 1970, Meisels 1973, Eisner 1969).

There appeared to be implicit questions each teacher confronts prior to entering the classroom which enable her to function in her defined role of teacher. These same issues equally limit the child in the classroom to that specific teacher's defined role of student. Chittendon and Bussis analysed teacher/child involvement in learning with regard to known educational styles in a comprehensive paradigm. (See Figure 1).

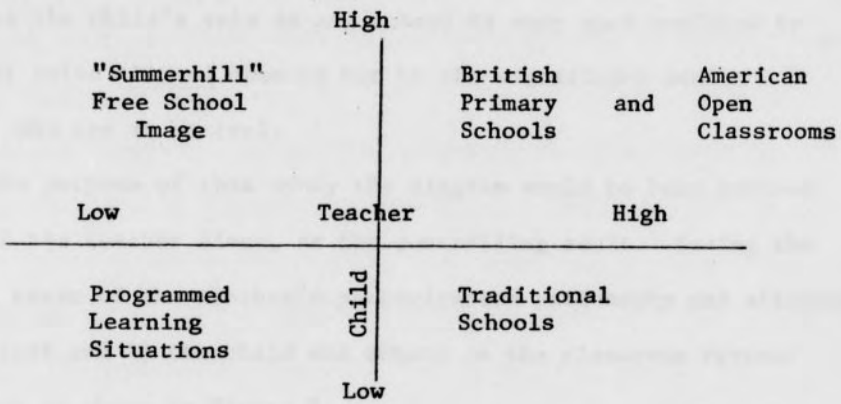

Figure 1: Teacher/Child Involvement in Learning Diagram (Chittendon and Bussis 1970)

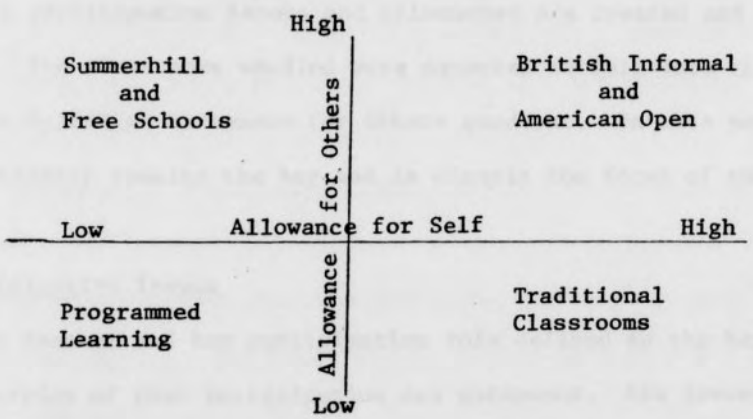

Figure 2: The Revised Paradigm of Teacher Participation Allowance for Self and Others

This system analysis was appropriate in a teacher participation study since the child's role in any school is very much confined by the defined roles allowed open to him by the significant adults (teachers) who are in control.

For the purpose of this study the diagram would be best revised in terms of the teacher alone, as the controlling adult. Seeing the diagram in terms of the teacher's participation philosophy and allowances for 1) herself and 2) the child and others in the classroom revises the paradigm as shown in Figure 2.

The reordered paradigm results in the same 4 quadrants and patterns; the focus shifted to the reality of the teacher control of the learning situation in the classroom and into the area of how those philosophical participation issues and allowances are created and implemented. The classrooms studied were expected to fall into the High Allowance for Self/High Allowance for Others quadrant. In this paradigm the teacher clearly remains the key and is clearly the focus of this study.

Teacher Participation Issues

With the teacher and her participation role defined as the key issue, examination of that participation was paramount. Six issues surfaced from the study of the literature which each teacher must resolve prior to or upon entering the classroom and which structure her own participation and that which she allows for others, notably the children, within the classroom (Good and Brophy 1973, Smith 1970, Chittendon and Bussis 1970, Meisels 1973, Evans 1971, Walberg and Thomas 1971, Grant and Hennings 1969, 1971).

For the teacher these issues are in the form of implicit or explicit questions which may be given direct consideration, but may be answered internally without conscious knowledge of philosophical decision processes. They may be stated as follows:

1) How the teacher views the learning process in children and how her role as teacher implements that learning process.
2) How the teacher views children and their role in thier own learning and the learning of their peers.
3) What the teacher provides for the incentives, clues, materials, facts, experiences, mysteries of and for learning.
4) What the teacher gives her approval to in how children use, approach, work with, extend, compliment, the things she has provided and the learning they are experiencing.
5) How the teacher observes, directs, is attentive to, extends and discusses, respects and is excited with the child about, the learning each child is experiencing.
6) How the teacher understands herself - her relationship to learning and growth as a person, her own self assurance, her relationships to others - basically, her feelings of self knowledge and acceptance and the extension of that into classroom life.

Rationale and Derivation of Variables

Through the examination of the literature, there appeared some distinct differences between informal education teachers and teachers within the more formally structured traditional classrooms in the manner in which they answer the questions embedded in the issues of participation (Evans 1971).

Walberg and Thomas (1971) and Evans (1971) found open education experts indicating significant agreement on many components of teacher participation in the informal classroom. Highly indicative components place the teacher clearly in the High/High Teacher Participation Allowance quadrant, showing high allowance and high participation for both teacher and child.

Examination of these components by Walberg and Thomas produced their Eight Themes of Open Education (outlined in Chapter II). One of these themes was "Provisioning for Learning: The Teacher provides a rich and responsive physical and emotional environment" (Walberg and Thomas 1971). Items involving the providing of materials, and also the manner in which children used space, materials, experiences, each other, and the teacher were included in this category: P1. "Books are supplied in profusion and diversity;" P9. "Space is divided into activity areas." P15. "Children move freely about the room without asking permission." P23. "Teacher does not group children by ability according to test or norms." (Walberg and Thomas 1971).

In comparing this theme and its items with the teacher participation issues there appeared to be several participation issues involved in this one theme which could be better defined in separate categories. There is a qualitative and important element in the provisioning of the basic materials, experiences, and elements of the learning environment which can and should be separated from those elements of the providing process which relate to other areas of the teacher's participation, such as how she extends learning or her tolerance of mobility and peer grouping.

Two other Themes of Open Education defined by Walberg and Thomas were "Diagnosis of Learning: teacher views child's work in school as opportunities for her to assess what the children are learning as much as opportunities to learn," and "Instruction-Guidance and Extension of Learning: teacher acts primarily as a resource person who, in a variety of ways, encourages and influences the direction and growth of learning." These seemed valuable themes and reflective of teacher participation at a high level, but many of the items in these two themes also seemed reflective of each other and appeared to be perhaps two levels of the same participation issue. Smith (1970) examined specifically the questioning and answering behavior of teachers which facilitates the learning process of the child. He defined probing, extension, questioning, listening behaviors implied in the two Walberg and Thomas themes and in the teacher participation issue of "How the teacher observes, extends, etc. the learning occurring or possible for the child". This role could be redefined, therefore, into one variable renamed Facilitation.

Many of the Walberg and Thomas component items that were found in themes such as Provisioning and Instruction appeared to represent a common element related to the teacher participation issue of "What the teacher gives approval to, in how children use, approach, work with, extend, complement the provisioning of the class." Such items as P14. "Children are able to make use of other areas of the building and school yard for educational purposes." P17. "Talking among children is encouraged," P22. "Children generally group and regroup themselves through their own choice" from the Provisioning Theme fit that category as well as some from Instruction such as I11 "Approach to learning is

interdisciplinary: child does not generally confine himself to a single subject such as mathematics when learning." and I12 "Activities do not arise from a pre-determined curricula" (Walberg and Thomas 1971).

These items addressed issues that imply levels of flexibility on the teacher's part and a mobility tolerance and allowance toward self, children, and program. Therefore, another variable combining issues and items aimed in this direction and named Flexibility/Mobility Tolerance was created.

One of the problems with the American open education system is the undefinable character of its descriptor (open) which has varied and divergent connotations. This descriptor must be broken down into elements that can be explained, seen, examined, planned for. The mileu felt upon entering an effective informal school conveys "openness". It speaks non-verbally to the things that are possible or thinkable in that social learning situation. But it is difficult to define.

Studies in social interaction have hinted at the manner in which "what's possible in a given situation" is conveyed non-verbally to those in that situation by the participants. Much of the theoretical work in this area has been done by Goffman (1955, 1956, 1967, 1973) who began to define how individual use of props (materials) stage, (environment, situation) and body (the individual's own in relation to the props, stage and all others in a situation) set the parameters and options available and give the situation its "feel" or its mileu. Scheflen (1973) defined very simple use of body language cues which can be read as the words of a page to decifer what an individual is "saying" about himself, the others around, and what is possible in any given situation between them.

Again the critical variable in the situation is the person, and in the classroom situation the key person is the teacher.

It appeared that if these body cues were readable, as the authors claimed, and unconsciously read in every situation, thus having the effect of setting mileu, then much could be learned about what teachers convey via non-verbal body language and stances which effect the classroom situation.

The use of body language and the Goffman, Scheflen definitions of open and closed stances, (the most elemental, simplistic and easily "read" cues), appeared one method of approaching the undefinable mileu of Openness from an observable level with an already defined framework for observations. Therefore, a variable of Openness was defined as approachable via this unusual research method as a way to begin the encoding and demystifying of Openness on at least one level, that of Body Stances.

These major Teacher Variables (1) Provisioning, 2) Facilitation, 3) Flexibility/Mobility Tolerance, and 4) Openness Stances) having been evolved, they became the basis and independent variables of this study. Their relationship to the already defined Teacher Participation Issues are outlined in Table 1.

The child is the recipient of the results of teacher answers to the participation issues. Therefore, it was appropriate to wish to ascertain the effects of these variables on the child in these situations. A measure of child progress and participation would aid in definition of the variables concerned and of the classroom effectiveness overall. However, as indicated earlier, evaluation of open systems is

an unresolved current issue with no easy solution. There is little that can be handled empirically which will yield satisfactory measures of these systems and the children who are a part of them.

However, two elements of the child's participation are of interest and import to and in all classrooms: 1) what the children are engaged in doing, the type learning experiences that are going on in the classroom, and 2) whether or not the children are actually engaged in and attending to their classroom tasks. These can be observed readily in every classroom and became dependent measures for this study.

Arlin (1974) used an Attending Behavior rating scale in his study of Open and Traditional classrooms. This scale also differentiated the type of learning activities occurring as "traditional" or "non-traditional". It seemed aptly suited to the present study and was used in its original form with the same definitions formulated by Arlin. However, research by Hess, et al (1973) defined the same phenomenon as Student Engagement thereby avoiding confusion with the large body of "attending" literature which currently addresses the particular workings of the intricate process of perception, memory, selection, etc. which has been minutely defined as attending behavior (Trabass and Bower 1968). Therefore, the label of Student Engagement was applied to the student on-task behavior observed and the variable implied.

Table 1

Teacher Participation Variables and Corresponding Underlying Participation Issues

Variable	Participation Issues
Provisioning	3. What the teacher provides for the incentives, clues, materials, facts, experiences, mysteries of and for learning. 2. How the teacher views children and their role in their own learning and that of their peers.
Facilitation	5. How the teacher observes, directs, is attentive to, extends and discusses, respects and is excited with the child about the learning each child is experiencing. 1. How the teacher views the learning process in children and how her role as teacher implements that learning process. 2. How the teacher views children and their role in their own learning and that of their peers.
Flexibility/Mobility Tolerance	4. What the teacher gives her approval to in how children use, approach, work with, extend, complement, the things she has provided and the learning they are experiencing. 2. How the teacher views children and their role in their own learning and that of their peers.
Openness (Open Stances)	6. How the teacher understands herself-her presentation of self, self assurance, etc.- her relationship to others and how that extends into the classroom

Theory and research (Furth 1970, 1974, Piaget 1951, 1952a, 1952b, 1962, 1968, 1956, 1969, Arlin 1974, Cratty 1970, 1971, Isaacs S., 1930.) would indicate that involvement and attending to an experience are critical to the learning process. Therefore, the degree of Student Engagement observed in classrooms and the type activities holding involvement should be an indication of one level of the learning occurring there.

Critics have hinted at over-stimulation and non-directed study in informal classrooms resulting in little concentration and children out of control with poor levels of attention (Plowden, 1967). The Student Engagement ratings should give an answer to a degree of this concern relative to whether children are in fact engaged in informal classrooms or exhibiting a high percentage of out of control or day dreaming behaviours. The Student Engagement variable addresses this question.

Critics have also charged that provisioning of non-traditional activities results in significant lessening of basic activities such as reading, writing, and arithmetic, thus reducing the provision of necessary basic skills (Plowden 1967). Student Focus data should give an indication of the strength of that charge by the percentages of children engaged in traditional classroom activities (popularly believed to be supportive of basic skills) and the percentages of children engaged in activities not expected in the classroom (which may be supportive of basic skills or of skills going beyond expected school abilities but popularly are thought frivalous and counter-productive to basic skills). Thus, the variable of Student Focus explores where Student Engagement is centered.

Purposes of this Study

The explicit overall purpose of this study was to observe:

1) British Primary classrooms representative of the innovations described in the literature,
2) the participation roles of the teacher in the defined areas of Provisioning, Facilitation, Flexibility/Mobility Tolerance, and Openness Stances,
3) the effects of these teacher variables upon the children through observation of Student Engagement and Student Focus.

The study was undertaken because of interest in critics' fears and popular conceptions about British Primary classrooms. Critics have feared that the informal structure would result in:

1) children without direction and therefore not engaged in classroom tasks and
2) lower academic standards exemplified by no attention to traditional academic tasks and basic skill activities (Plowden 1967, Cox and Dyson 1968, 1969, Peters 1969).

Many American replications of the new British style classrooms have put primary stress on the area of material provisioning as the key variable observable in the informal classroom and therefore the differential variable in effecting the desired change in student involvement in learning.

Marsh, in Alongside the Child in the Classroom (1970) talks about this problem explicitly. The work of Marion Richardson in introducing large brushes, paints, large painting surfaces, and freedom of creative

expression without adult restrictions into the British schools in the late 1940's (Richardson 1948) had much influence in changing art programs and the use of artistic expression in the schools from that time on. Marsh, however, remarks on the problem of oversimplification of this change when it is seen as the method itself and reviewed as a provisioning change :

> ... to some extent the extended period of children painting that followed...could be seen in classroom terms to be a change of materials. Children were now to use large brushes and paint large pictures. To the extent that this was true we now see this type work still undertaken and it clearly reveals the inadequacy of such an approach. In many schools the kind of painting associated with Marion Richardson's influence becomes duel and degraded as the child progresses through the school and the teacher becomes remote from the whole process practised by the child. It is the author's view that curriculum change that merely concerns itself with materials in this way... has little value and is a source of imbalance in the work of the teachers in school... The concern with materials as such...provides a quite inadequate framework for the teacher's action and evaluation and deprives him of the fundamental purpose of his work - working alongside the child in the process on which it is engaged. (Marsh 1970, pp. 137-139)

This same mistake, the easy answer, the most readily observable and surface solution, has been made both sides of the Atlantic in attempts to create informal systems. Provisioning is regarded as key and the active role of the teacher minimized and little addressed.

Great difficulty has been discovered in coming to terms with the mileu of Openness which has become a popularized term and is present in these classrooms on observation. It has been extremely hard to define and pin point. One area which speaks to this is the social interaction theory and its definitions of non-verbal communication conveyed through physical stances (See Chapter III). These stances are said to

communicate what is possible within a situation for each participant within that situation and, therefore, in effect, to set the mileu of, in this case, the classroom. Teacher Stances possibly can convey the openess cues or non-openness cues felt in classrooms (Goffman 1956, 1959, 1967, 1973, Grant and Hennings 1969, 1971).

These fears and popularized notions needed clarification and examination and this was an overall purpose of this study.

Limitation of Focus

This was a naturalistic study. It was anticipated that observations would be examining the High Participation/High Allowance quadrant classrooms and such was the case. Since examination was within one quadrant it was not possible to compare teacher participation decisions with regard to the whole spectrum. Examining the limited range found within that one quadrant, results were descriptive and elaborative but not comparative in nature.

Hypotheses:

Seven hypotheses were generated for this study. It was hypothesised:

1) Student Engagement percentages in the British informal classrooms will be high.
2) There will be no significant differences in percentages of students engaged in traditional and non-traditional activity focus in these classrooms.
3) High levels of Provisioning, Facilitation, Flexibility/Mobility Tolerance, and Open Stances will be found in these classrooms.
4) Provisioning, Facilitation, Flexibility/Mobility Tolerance and Open Stances will be highly interactive and will show high inter-correlations.

5) Provisioning alone will not show a significant correlation with Student Engagement.

6) Facilitation and Flexibility/Mobility Tolerance will correlate significantly with Student Engagement and in that order.

7) "The higher the correlation between Provisioning, Facilitation, Flexibility/Mobility Tolerance, and Open Stances and the greater the incidence level of these variables in a classroom, the higher the Student Engagement level will be".

CHAPTER II

REVIEW OF LITERATURE

Literature pertinant to this thesis is extensive. Several bodies of literature were necessary to provide knowledge on the various aspects of the situation addressed. Pertinant was literature concerning: 1) British Primary Schools, 2) American Open Education, 3) American and British Research on Informal Education Systems, 4) Student Engagement, 5) Social Interaction Theory and Non-Verbal Communication, and 6) Theories of Cognitive Development relevant to the Informal System. Due to the amount of literature covered and the scope encompassed, the review here will be formal and brief. The bibliography of the thesis covers many pertinent references as well as the material used directly in thesis writing and as such is reflective of the width of the review, although a total bibliography would be too extensive for this work. Barth and Rathbone (1971) have compliled an annotated bibliography relevant to further interests.

This review of the literature is here structured via the specific bodies of literature addressed.

Literature Descriptive of British Primary Schools

Since much has been written since the mid 1960's that is descriptive of the approach in question it seemed appropriate to refer the reader to available reviews of this literature and outstanding single works in specific areas.

The single most evaluative work in review of the descriptive literature has been done by Walberg and Thomas (1971). Their examination

of the literature categorizes the material and approach of each author and the strength of coverage each work gives to Walberg and Thomas's defined Eight Themes of Open Education. In one single review, therefore, it is possible to find the works that have the most insight or coverage both overall and in specific areas and approach the process from the role of analyst, practitioners, observers, advisors, or from the perspectives of historians or advocates of affective orientation (ala Holt).

Outstanding works that deal with both the British and the American systems overall from the viewpoint of analysis and research are those of Barth (1968, 1969, 1970a), who synthesizes basic assumptions of the system, Rathbone (1968, 1970, 1971), who analyzed the implicit rationalè and underpinnings of the informal class, and Chittendon and Bussis (1970), who designed a paradigm that encompasses the teaching styles of the four major educational systems and then analyzed the characteristics of teachers in the informal system. All three of these works are by American educators and are more philosophical and theoretical in their approach.

British works of ultimate import on the British system include the extensive Plowden Report, Vol. 1, Children and Their Primary Schools by the commission for the Central Advisory Council on Education (1967). Plowden includes philosophy, assumptons, reports of operating classrooms, recommendations for system change and recommendations for system philosophy and practical implementations. It has become an effective change agent found in dogeared condition on Head teacher's desks across the Kingdom.

Another important work is that by Blackie (1967, 1971). From the viewpoint of his role as Her Majesty's Chief Inspector in the school

system during the rapid change period, Blackie reports philosophically, operationally, structurally, and historically on the development of the New British approach. Blackie's first British edition of Inside the Primary Schools (1967) was written to explain the new system to British parents. The American edition (1971) was revised in large measure to address questions of the American public but it is a valuable resource descriptive of operative process and history. Blackie and Plowden together are the most quoted British works.

Brown and Precious (1968), Marshal (1963), Ridgeway and Lawvton (1965), Murrow and Murrow (1971), Marsh (1970), Brearly (1967), Featherstone (1967, 1968, 1971), Rogers (1970), Goddard (1969), Clegg (1971), Yardley (1970), Eisner (1974) all have contributed descriptions of the system which have provided clarity and insight into the operational factors. The Murrows, Eisner, Featherstone, and Rogers addressed the system as American educators observing and describing the classrooms they visited. Their perspectives are especially pertinant to American education. The other authors are educators and practicianers from within the system whose descriptions are most clear for understanding the actual process. Each has it's particular strength (as can be seen in the Walberg and Thomas study) but of particualr note would be the Marshall work as it is clearly the description of the single teacher change process necessary to develop the informal classroom process.

One series of books developed for introduction to the British system and containing 21 short books on specific area concerns by English experts in the informal classroom is The Informal Schools in Britain Today series (Anglo-American Primary Ed. Project, 1971).

For a rapid introduction into a specific approach to environmental studies, maths, informal reading and writing approaches, the role of the teacher, etc. this series has played an important role.

Another component of this descriptive literature is that of specific curriculum component guides and ideas. Of great importance in this area has been the Nuffield Foundation (1967a + b,) the School's Council publications in Mathematics (1966a), science (1969, 1966b), and Department of Education and Science publications on curriculum (1970) Primary Education (1959), Movement (1952), Math (1969), Science (1969), Reading (1966). These publications constitute the type materials English educators use and also the type of materials that most readily illuminate the actual process occurring.

Literature in opposition to Plowden recommendations and informal British systems has included scholarly works out of the University of London. Chief in this respect are The Black Papers written and edited through a British journal by Cox and Dyson (1968, 1969). Peter's Perspectives on Plowden (1969) also addresses these concerns of quality, discipline, unclearly stated philosophy, and the felt concern of a poorly handled evaluation of the system by the Plowden Commission. Implications and recommendations have come under attack for lack of clarity, consistency, practicality and non-ability to transfer flowery language into recognizable and comprehensive reality. Both Public and Professional understanding of the system are spotty and the conflicts often address bogus issues, as is also the case in America.

Literature Descriptive of American Open Education

Again, the most inclusive literature analysis is that of Walberg and Thomas (1971) for the same reasons referred to in the section on British literature.

Also, as with British literature, three of the most outstanding works addressing the American system are Barth (1968, 1969, 1970a) Rathbone (1968, 1969, 1970, 1971) and Chittendon and Bussis (1970).

One outstanding work on the development of open education in America is the NAEYC publication by Devaney (1974). This work covers all aspects of the development of the system and the process itself and also provides an annotated bibliography of the work in the area.

Authors who have addressed the developing system as a whole, making important contributions, have been Weber (1971), Hertzberg and Stone (1969), Katz (1972), Spodek (1970), Prescott and Raoul (1970), and Silberman (1970, 1973).

As with the British system specific area concentrations and reports of specific practitioners have had influence in America. Armington (1969), Taylor (1971), Hawkins D.(1964, 1965, 1966, 1967, 1969a, b, c, 1972), Yeomans (1967, 1969a, b, 1970), Cazden (1969) Eisner (1969), Meisels (1973), Sargent (1970) have all addressed important aspects of practice, defined new directons or evolved new insights instructive to the system or reported their own expressions. Taylor has outlined classroom process and operation, Hawkins has had impact in science and environmental education, Cazden in language and reading, etc., Eisner in defining the expressive objective and

its implications to the important evaluative process, Meisels deducing the intuitive and facilitative intervention of the teacher in the open education process, Sargent reported in detail her work in open education with detailed plans and diagrams that enable accurate internal pictures of her work and process, etc.

Elements contributing most are the philosophical and insight outgrowths that have evolved new directions or ways to examine the process. Therefore, Rathbone, Barth, Eisner, Chittendon and Bussis, Hawkins, Meisels, and others like them who have contributed a particularly innovative piece to the puzzle are the most necessary American work presently.

Empirical Research on Informal Systems

British research in informal classrooms has been limited. Morris (1966) and Gardner (1966) have examined results of the system and found favorable results. Gardner (1966) data examined scores of children from informal classrooms and those of children in more traditional classrooms and found that informal classroom experience did not produce children behind in expected skills, However, strengths of these children were not examined and comparisons of this sort measure by traditional means and ideals non-traditional learning and products and are essentially defensive in nature. Morris (1966), studied the teaching of reading and the standards and progress made in informal classrooms. Progress in reading was made but physical provisioning of access to reading incentives was still not at high levels in 1966.

Gardner and Cass (1965) examined the classroom and teacher interaction and found similar components of teacher interaction as those defined by Walberg and Thomas (1971) and Chittendon and Bussis (1970).

Major research efforts have taken place in America or by American educators. These research efforts have appropriately centered on the descriptive role of naturalistic studies and have attempted to 1) operationally define the characteristics of the informal system (Walberg and Thomas 1971, 1972, Patton 1973, Evans 1971, Traub 1972, Stallings, et al 1973, Withall, J, 1970); 2) systematically describe teacher functioning in these classrooms (Resnick 1971, Evans 1971, Walberg and Thomas 1971, Brandt 1972); 3) formulate paradigms or frameworks of philosophy, theory and practice that can serve as methods of observing or judging these classrooms (Chittendon and Bussis 1970, Barth 1968, 1969, Eisner 1969, Walberg and Thomas 1971); 4) examine the effects of the informal system on the children in areas of participation, attention to task, attitudes (Nasca 1972, Arlin 1974, Hess et al 1973).

It is noticeable that much research has been the direct or indirect responsibility of the Educational Development Center in Newton, Mass. This has meant that much research has been built directly on previous EDC data and enabled the coverage of much material over a relatively short time frame through cooperative, telescopic efforts. Chittendon and Bussis (1970), Walberg and Thomas (1971), and Evans (1971) are examples of this process.

Nasca has examined instructional patterns and gains in affective and cognitive areas (1971, 1972, 1974) and through the results of these

studies refocused into a current research on elements of the activities and groupings within the classroom and how this is enabled through physical elements in the environment (current research).

The most relevant research to the present study has been the EDC associated series of Chittendon and Bussis (1970), Walberg and Thomas (1971), and Evans (1971) and that of Resnick (1971). An unpublished study by Arlin also had major influence and direct implications (Arlin 1974).

Resnick observed four British Infant Schools coding teacher verbalizations. Data resulted in patterns of two interactons per minute with children initiating brief interaction, teachers initiating more extended interactions, and teacher patterns being rather stable for the 4 classrooms observed. The most striking data feature was predominance of the questioning behavior on the part of the teacher. There was an obvious modeling effect of attitudes of inquiry and investigation toward the entire environment due to this predominant teacher style. There was also a management function apparent in the process, aiding children to learn to take responsibility for their own learning activities and specifically practice in making choices and committments (Resnick 1971).

The Arlin research observed a rural North Carolina county school system to compare traditional and open clssrooms and examine the effects of these teacher strategies upon student attention, attitudes, and achievement (Arlin 1974). The results of this study have not been published to date but the instruments and research methods of this study became important to the present study during formative stages

in the spring of 1974. The present researcher accompanied the Arlin research team, established inter-rater reliability with this team, and acquired experience in use of the Arlin instrument during that period. The Arlin instrument was basically adapted from the Walberg and Thomas instrument. This experience with the Arlin team gave base experience with the research material and method upon which to formulate instruments and methods for the present study. The methods and instrument used in the Student Engagement segment of this study were the same as those formulated for the Arlin study, influenced by the work of Hess, (See Appendix F) and many items from the Arlin classroom evaluation are taken in direct or revised form from the Arlin instrument for inclusion in the Teacher/Classroom Rating Scale of the present study (See Appendix G).

In 1970 Chittendon and Bussin, working out of Educational Testing Service for EDC, examined the Follow Through classrooms and teacher behavior and produced two important results.

First, they established a paradigm for viewing the participation and involvement of the teacher and the child in the classroom learning process. This paradigm (Figure 1) enabled classification of classrooms into educational styles by the involvement level observed for the teacher and the child. This has proved to be a most heuristic model for examining classroom functioning. They saw open classes as high in teacher and high in child involvement.

Second, through work in classrooms and with Follow Through advisors, Chittendon and Bussis clarified defining characteristics of

the Open Teacher and behaviors associated with them. Table 2 reports these heuristic characteristics which were the imputus to the Walberg and Thomas Open Education Themes that followed and have had a spreading effect upon research in this area.

Walberg and Thomas of EDC expanded upon the Chittendon and Bussis characteristics of Table 2 and formulate their own Eight Themes of Open Education:

1. Provisioning
2. Diagnosis
3. Instruction
4. Evaluation
5. Humaneness
6. Seeking
7. Self-Perception
8. Assumptions of Learning

Walberg and Thomas then examined all the extensive literature on informal approaches and evaluated how well each work dealt with their Themes of Open Education.

Second, they operationalized the 8 Themes into a list of items representative of these themes and submitted them to 43 experts in the field for rating on a 3 point scale of importance. Based on results of most important items a rating scale and teacher questionaire to examine open classrooms was devised. These scales were instrumental in the formulation of the Arlin instrument and others, but more importantly, were the scales used on the next EDC step in the chain, the research by Evans.

Table 2

Analysis of Behaviors
Tentatively Proposed as Defining
Characteristics of the "Open Teacher"

Teacher's Internal Frame of Reference	Activities when Children are NOT present	Interactive Behavior with children
Ideas Related to Children and to the Process of Learning a. knowledge, beliefs, attitudes. b. trust in ideas c. valuing processes	Provisioning for Learning *	Diagnosis of Learning Events *
	Reflective Evaluation of Diagnostic Information *	Guidance and Extension of Learning *
	Seeking Activity to Promote Personal Growth *	Honesty of Encounters
Ideas Related to the Perception of Self a. A "beyond the classroom" self b. Responsibility c. Decision - maker d. Continual learner		Respect for Persons

* behaviors hypothesized to define the horizontal dimension of 2 Dimensional Contribution Framework (Chittendon and Bussis, 1970)

Evans (1971) examined American and British classrooms using observer ratings on the 4 point scale. The teacher questionaire (Walberg and Thomas) served as a validity check on the observers.

Comparisons showed informal classrooms exhibited 1) more variety of use of materials and activities, 2) more flexibility in grouping and scheduling procedures, 3) children talking more freely, 4) children moving about the room more, and 5) deeper involvement in activities than in the traditional classrooms.

Teacher questionaire and observer classroom scores were highly significantly correlated at .782.

Analysis of variance showed significant differences existed between the three groups (American Traditional, American open, and British informal classes) at the $p<.001$ level. Significant differences were shown between the 2 open systems combined and the traditional system, but no significiant difference was found between the 2 open systems. Figure 3 shows the mean distribution on a range from 0 - 200 for the three groups compared.

Figure 3

Evans Research Mean Scores of Traditional and Open Classrooms

Classroom Style	Mean	s.d.
American Traditional	117.46	19.59
American Open	163.17	14.08
British Informal	160.80	13.07

For 68% of each group the scores between groups did not overlap the open/traditional line.

Evans found more open classroom characteristics in higher economic status classrooms overall in Britain and in America. ($p<.02$ level)

Research in this area is expanding and EDC's leadership in providing heuristic structures to begin more systematic examination of the process is significant.

Literature Focusing on Student Engagement

Attending literature is complicated. Current focus scientifically in America upon attending is dealing with the intricate internal processes of perception, memory, selective attention, overtraining, cognitive styles, and other minute processes (Trabasso and Bower 1968). This research direction has relevance to the classroom process but is not easily examined in the classroom itself. On-task behavior studies such as Arlin (1974) examining classroom attending are more pertinent to the direct task of this research.

Hess et al at Stanford in 1971-72 studied this process as part of an overall on-going educational research, evaluation, and development project in teacher training, classroom differences, and intervention methods (1973). In this study the process is referred to as Student Engagement and that variable properly places the emphasis of focus for the present study as it did the Hess work.

The Hess study was a naturalistic study in low socio-economic-status schools and examined in detail teacher strategies and student behavioral responses and the relationship between them.

Hess found significant differences in Student Engagement depending on group size ($p < .05$) with lower engagement levels for larger groups and higher engagement in small or dyadic groups. Significant differences were found between teachers in strategies employed but significant differences in strategies within a classroom indicated situational teacher strategy changes.

The Hess Student Engagement definition was observable interest and/or attention to a learning task and engagement was assumed a prerequisite to learning and academic achievement in the classroom. Arousing and maintaining that Student Engagement was seen as a basic component of the teacher's role.

Table 3 reports the Hess teacher and student orientations operationally detailed.

Results showed Student Engagement averaged 78% over four rounds of observations with a range of teacher means from 75% to 83%. Student Engagement increased over the year observation schedule.

Due to the range of strategies found employed by each teacher, the analysis of differences between teachers did not show significance. However, large teacher-to-teacher differences were reported and the top quartile teachers as a group had a significantly higher Student Engagement level. Although statistically significiant results were not possible, the means of high and low classrooms were striking and showed marked differences (Low = range of 60-80%; High = range of 80-88%).

Table 3

Hess Study Student and Teacher Operational Areas

Teacher Strategies	Student Engagement Response Areas
1. Stimulus Variation & Change	1. Motor
2. Affective	2. Verbal
3. Task Structuring	3. Visual
4. Evaluative	4. Global
	5. Direction
	6. Grouping

Student Engagement Response Patterns

1. Expressive
2. Receptive
3. Engaged
4. Disengaged

No sex, ethnic, subject matter significant differences were found with Student Engagement.

Conclusions reached by the Hess team were that although Student Engagement did not show strong relationship to any specific teacher instructional behavior, it was related to systematic variation in the educational environment. Since group size showed differences, other contextual variables may also be related. Hess like Nasco, reevaluated instruments and focus to more carefully examine organizational and structural conceptions of the classroom/teacher/student relationship.

This research is also expanding and very related to the examinations of informal systems.

Literature on Social Interaction Theory

The role of non-verbal communication in the interaction process between people has begun to be recognized as an active part of the societal structure. Goffman (1955, 1956, 1959, 1967, 1973) studied this phenomenon and developed a social interaction theory based on theatrical self performance with dramaturgical principles used to consider the manner in which social situations are formed, changed, structured, controlled by the individual's presentation of self and performance within them. In each situation the individual has two different kinds of communication levels at his disposal. The first is the recognized verbal expressiveness used to convey the information he wishes expressed. The other is the focus of Goffman's work, and a segment of this study, and involves the wide range of actions that others treat as symtomatic of the individual, that are interpreted by

others and are the expressions "given off" by an individual (Goffman, 1957).

Goffman's studies have ranged from the study of interaction of a Scots community on a single Shetland Island (1955), to studies of the interactions of mental patients (1956), to the study of the Presentation of Self in Everyday Life (1959).

Of particular interest to the classroom examination should be the Goffmanian definitions of the ceremonial order in which deference and demeanor are active. There are formal and informal rules of being in a situation and there are also the substantive and ceremonial rules. Substantial rules guide conduct with regards to matters that have significance in their own right while ceremonial rules guide conduct in matters having primary importance as a conventionalized means of communication by wich an individual expresses his character or conveys his appreciation of others in the situation (Goffman, 1956). Codes of conduct guarantee that everyone acts appropriately and receives due regard. Rules of etiquette are ceremonial rules on the understood level. However, most ceremonial rules do not have as clear a statement but are culturally understood and passed on just as surely. The showing of deference and the eliciting of deference have to do with distance, stance, gestures which represent a desired presentation and representation of a person's role and being. Interaction of deference behaviors of unequal individuals (i.e., teachers and students) highly structure the possibilities in a situation where unequal individuals interact. These can be read in intricate, intuitive ways unconsciously, or to the trained eye in conscious interpretations.

The basic "language', however, can be "read" in the simple stances of the individuals involved (1959). In the situations where highly ceremonialized rituals of interaction of unequals exists societally, the deference behaviors of the individuals are highly important (1956). This would be exceedingly true in the classroom.

Patrick Conover in his studies of body language cues in interaction examined the deference cues of stance used between males and females in a contemporary commune (1973, 1974). In this situation examination was possible of the underlying structures present in an interactive situation where societal genderal roles have changed.

Scheflen has written a much more popularized version of Goffman's theory instructing the use of body language in communication (1973).

Grant and Hennings (1971) explored the movement and non-verbal use of self in expressing and teaching within the classroom. They did not make use of Goffmanian terms or references in their research but defined both instructional and personal movements present and three specific instructional motions: 1) conducting, 2) acting, and 3) wielding movements. They used the video tape and analysis method enabling careful examination of teacher movement by researcher and teacher.

Regardless of their orientation, their basic sense is Goffmanian when they say;

> In his classroom performance a teacher is continually generating clues as to what he holds important, what standard of behavior he expects, what kinds of participation he wants, what quality of work he will accept. Some of a teacher's clues are verbal; others are non-verbal. Some clues are generated consciously by the teacher; other clues are not even within the teacher's

> sphere of awareness. But regardless of whether the clues are verbal or non-verbal, regardless of whether the clues are consciously or unconsciously being generated, the students are molding their behaviour in reaction to those clues.
>
> (Grant and Hennings 1971, pg. 73.)

Grant and Hennings also closely tie the teacher's non-verbal stances and movements to the teacher's conception of the positive classroom environment.

> Each teacher has his own unique, idealized conception as to what makes up a positive classroom environment, and it is in terms of this ideal that he teaches and judges his own teaching behaviour. In his idealized conception of instruction are notions about the part the children should play in instruction, the amount of individual attention that should be given, the kind of climate he wants to achieve and the nature of the pupil-teacher relationship he wants to maintain.
>
> (Grant and Hennings 1971, pg. 89.)

Grant and Hennings feel descriptive research using the video tape and analysis system and examining both verbal and non-verbal teacher interaction can help answer the questions of how these idealized concepts of instruction affect the non-verbal clues teachers generate (1971).

Smith and Meux (1962) examined carefully and in detail the verbal patterning of teachers and how they carry on such logical operations as classifying, defining, explaining, and evaluating. This was informative work on the facilitative verbal behavior of teachers and also has relevance to the Grant and Hennings and Goffman work.

Bellack (1966) examined similar patterns of structuring, soliciting, responding, reacting in teachers' verbal behavior in the classroom.

Flanders (1965) also has examined the teacher classroom performance more on the verbal level; i.e., how teachers accept student feeelings; give praise; accept, clarify or use student ideas; ask questions; lecture; give direction; give criticism.

Biddle and Adams (1967) with Grant and Hennings have used the video tape and analysis system in describing interactive patterns in the classroom.

All of these researchers have begun on this process but none have recognized the cross discipline impact that Goffman's sociological approach can offer to the examination of the teacher's role and presentation. This study will focus on the stance of teachers in the ceremonial sense of giving, eliciting, and receiving deference between teacher and student and the effect this has on the establishment of the mileu and the interpersonal situation.

Literature on Developmental Theory

Theoretical background literature supportive of this system rests upon several recognized theories, present and historical. Basic are Froeble (1885), Piaget (1951, 1952a, 1952b, 1954, 1962, 1968, 197-, 1956, 1969). Bruner, (1962, 1973, 1966) and Isaccs, S. (1930). All are based on a developmental approach and the active role of the child in his learning. All have recognized the role of play for the child in the learning process.

Rather than attempt explicit theoretical explanations of recognized theorists such as Froeble, Piaget, and Bruner it should be stated that both their work and reviews and expositions of their work

abound for the uninitiated. (Bowen 1906, Lawrence 1952, Isaccs, N. (1955 etc.)

Writings that particularly relate these theories to the informal system seem most pertinant. Furth, Thinking Goes to School (1974), Brearly, Teaching of Young Children: Some Applications of Piaget's Learning Theory (1970) and Schwebel and Raph, Piaget in the Classroom (1973) are examples of the use of Piagetian concepts, theory, and research to approach more specifically classroom orientations. Nathan Issacs (1955, 1961, 1965) and Flavell (1963) have excellent works interpreting Piagetian theory and implications. Kamii (1970, 1972), Sinclair and Kamii (1970, Lavatelli (1970) have specifically developed curriculum orientation based on Piagetian tasks. Ginsberg and Opper (1969) and Elkind (1970) have written more simple, yet sensative reviews of Piaget's work.

Susan Isaacs was an English psychologist, educator, who felt that the ideas of Froeble were correct in the development of cognitive and social components of the self (1930, 1963). Play for both of these theorists was a major element of learning (Froeble 1895, Isaacs, S. 1930). Much of their work and theory is reflected in the structure and functioning of the British system. The English educators contribute more emphasis to this combination as background to their movement than to Piaget, whom they feel is the proof of their system, not the basis (Porter 1974).

Educational systems should be developed to mesh with what is known practically and theoretically about the way children develop

and learn. The English informal system comes closer to that fit than traditional systems employed in America. However, it was not developed from the theory up to practice. The integration of theory and practice observed in the British schools was first by coincidence and then by recognized design that continued the process on the conscious level. American educational practice can learn a great deal from the British in creating theory/practice integration.

CHAPTER III

METHODOLOGY

Location of Study

This was a naturalistic study carried out during the summer of 1974 while the researcher was studying on a summer program at Berkshire College of Education in Reading, England. All schools were in the general Reading area, accessible through established college channels. Summation of Schools Data is contained in Table 4.

Descriptions of Communities and Schools

All schools were used according to their accessibility and willingness to participate in the study. Arrangements for research visits were made through the college prior to research dates. Eight schools were part of the study. Five were taking part in the Berkshire College summer program for placement of American students from UNC-G and Guilford College into classrooms representative of the informal system. Three were in very close geographic proximity to Berkshire College and often used by the college in their student observation and participation program. All eight schools were positive about their participation and all Heads understood the basic research intent of the study.

The five schools in the UNC-G/Berkshire College placement cluster were in the small villages of Thatcham and Newbury located approximately 15 miles outside of Reading in the Thames Valley.

Thatcham historically had been a gypsy area. It has had a typically transit, unstable population with low economic levels and

unstable family patterns. During the war army barracks were constructed near the village and a large air field built for the military. Following the war Thatcham became known as a "squatter" area because of the large number of transcent, unemployed, homeless people who moved into the abandoned army barracks. This continued to keep the economy low, the population and family patterns unstable. Many gypsy caravan sites, which in the present form in America would be known as trailer parks, were still present in the area, and upon the razing of the army barracks Council Estates (public housing) were built to house the Thatcham "squatters". The latest influx of population had again been from the lower social economic segment of the population moved into new Council Estates through "relocation" activity in Reading and London as slum areas were torn down or new roads constructed.

Presently, as well as historically, Thatcham is an economically and socially depressed area with low education levels. Parents often having had unhappy educational experiences of their own and, often untrusting of school situations. (Plumbridge, 1974)

However, by American visual standards for depressed, low economic, rather ghetto-like situations, Thatcham did not resemble an American socio-economic-status counterpart. It had a rural, working class tone about it and was picturesque as it nestled into the beauty of the Thames Valley.

Of the school observed in Thatcham four served a predominately typical Thatcham population and one served the more upwardly mobile area where town officials and professionals lived.

Newbury, geographically very close to Thatcham, historically had many of the same problems. However, relocation and "squatter" populations did not concentrate in Newbury, and, hence, Newbury is now a more upwardly mobile, working class stable population. Many new apartment complexes have developed in the area. A race track (horses) is located in Newbury and brings economic aid as racing is a popular spectator sport in England. Many of the teachers from the Thatcham schools lived in Newbury.

The school observed in Newbury was in an apartment complex area serving a low economic population yet working class segment of Newbury.

Reading, an industrial city of approximately 160,000 people situated where the Kennet River meets the Thames, has due to its location been an historically important access point for transportation routes to London on the East Coast via the Thames and to Bristol on the Western Coast via the Kennet and Avon River and canal system. Canal traffic and trade have been important in the growth and economic history of Reading. During recent history the more predominant economic factors influencing Reading's development have been the Huntley Palmer biscuit factory and the Sutton Seed Company. Both have had large industrial work forces. Due to industrial labor opportunities a large immigrant Indian-Pakistani population has developed in Reading and settled into the depressed area surrounding the canal and river. This area had become run down and sparsely occupied with the decline of canal transportation. This influx has created a racial ghetto along

the canal. Currently, the Indian-Pakistani population is building up and improving the canal area from a depressed to a working class section, but the segregated situation is not changed.

Reading, as all large English cities, is divided into sections with township areas adjoining the main city. The three Reading schools were in the township of Earley where Berkshire College is located. Two of these schools were located in an even smaller section known as Woodley which is a newly built up area, predominantly apartment complexes, new housing developments, and some Council Estates. Children in these schools tended to be from lower economic backgrounds and working class families roughly comparable to the school observed in Newbury. The third school served the more middle class section of Earley with more children of professional families (including some children of Berkshire College professors).

All schools were part of the LEA state maintained system and within the Berkshire LEA district. One school in Reading and two in Thatcham had been church supported schools prior to becoming part of the state LEA system. One of these was a relatively new school (20-25 years) and the other two were very old schools operating in buildings built prior to 1900, remodeled, with additions added. The remaining five school structures were all constructed to implement the informal approach and were built within the last one to six year period.

The Children

Schools studied served an age range of 5-11 years or the ages customary in the British Primary School. Three of the eight schools were Infant Schools with children 5 - 8 years. One school was a Junior School with children 8-11 years. Four were Primary Schools covering both of the previous age ranges. Of the 44 classrooms observed, 39 were composed of 5-8 year olds and 5 were composed of 8-11 year olds.

All classes were vertically or family grouped with a mixture of children representative of the school age range found in each class. All were heterogeneously grouped with regard to ability. The racial makeup of these schools, even in Reading, was almost entirely white (96-98% in all schools). Non-white children present were Indian-Pakistani, with a tiny minority of South African blacks in Reading. Access to the Indian-Pakistani neighborhood school in Reading was not possible at the time this study was done.

The Classrooms

As stated, all classrooms were vertically grouped by age and heterogeneously grouped by ability. All classrooms studied exemplified some form of the new informal approach. However, as befitted the latitude for autonomy at the school and teacher level, all schools were unique and structural variation within the informal posture was prominant. (Discussion of structural variations here is for the purpose of description and not to indicate contrasting forms.) Of the eight schools studied for example, 5 emphasized team teaching approaches

Table 4

School and Classroom Data

Teacher	School	Town	Structure	Children ages	Time Schedule	Classroom size
01	Dunston	Thatchum	single teacher	infant(5-8)	flexible	29
02	Dunston	Thatchum	single teacher	infant	flexible	26
03	Dunston	Thatchum	single teacher	infant	flexible	26
04	Dunston	Thatchum	single teacher	infant	flexible	23
05	Dunston	Thatchum	single teacher	infant	flexible	21
06	Dunston	Thatchum	single teacher	infant	flexible	25
07	Gray	Reading	team	infant(5-8)	bell	25
08	Gray	Reading	team	infant	bell	20
09	Gray	Reading	team	infant	bell	28
10	Gray	Reading	team	infant	bell	29
11	Gray	Reading	team	infant	bell	26
12	Gray	Reading	team	infant	bell	26
13	South Lake	Reading	team	infant(5-8)	flexible	22
14	South Lake	Reading	team	infant	flexible	34
15	South Lake	Reading	team	infant	flexible	26
16	South Lake	Reading	team	infant	flexible	27
17	South Lake	Reading	team	infant	flexible	22
18	South Lake	Reading	team	infant	flexible	21
19	South Lake	Reading	team	infant	flexible	27
20	South Lake	Reading	team	infant	flexible	28
21	South Lake	Reading	team	infant	flexible	24
44	South Lake	Reading	team	infant	flexible	26
22	Parson Downs	Thatchum	team	junior(8-11)	flexible	34
38	Parson Downs	Thatchum	team	junior	flexible	20
23	Whitelands	Thatchum	team	primary(5-11)	flexible	25
24	Whitelands	Thatchum	team	primary	flexible	25
25	Whitelands	Thatchum	team	primary	flexible	25
26	Whitelands	Thatchum	team	primary	flexible	16
27	Whitelands	Thatchum	team	primary	flexible	25
28	Whitelands	Thatchum	team	primary	flexible	26
29	Whitelands	Thatchum	team	primary	flexible	25
30	Whitelands	Thatchum	team	primary	flexible	25
31	Greenham Ct.	Newbury	single	primary(5-11)	flexible	34
32	Greenham Ct.	Newbury	single	primary	flexible	30
33	Greenham Ct.	Newbury	single	primary	flexible	27
34	Greenham Ct.	Newbury	single	primary	flexible	21
35	St.Peters	Reading	single	primary(5-11)	flexible	23
36	St.Peters	Reading	single	primary	flexible	35
37	St.Peters	Reading	single	primary	flexible	34
39	St.Marks	Thatchum	team	primary(5-11)	flexible	26
40	St.Marks	Thatchum	team	primary	flexible	32
41	St.Marks	Thatchum	team	primary	flexible	34
42	St.Marks	Thatchum	team	primary	flexible	34
43	St.Marks	Thatchum	team	primary	flexible	23

while 3 used single teacher classrooms, and 7 had integrated curricula with rather flexible scheduling while 1 divided its curriculum into subject areas and was scheduled by bells.

Classroom size ranged from 16-35 children with a total of 1,160 students observed with their 44 teachers. Mean classroom size was 26.4 with a corresponding median of 25.5. Single teacher classrooms had a mean of 27.5 and median of 28 while team taught classrooms had a mean of 26 and a median of 25.

Complete Classroom and School Data is reported in Table 4.

Definitions of Research Variables

For the purpose of this study the teacher Participation Scale variables were defined as follows:

1) Provisioning was defined as that part of teacher participation which, either in or outside of classroom time, provided on the concrete level materials, facilities, and experiences that made up the concrete learning environment of the classroom.

2) Facilitation - was defined as teacher participation which: 1) guided, extended, integrated the child's learning 2) promoted growth, and 3) extended the child's cognitive processes.

3) Flexibility/Mobility Tolerance was understood as a continuum reflecting teacher allowance of participation by the children and herself in the classroom. This could include teacher/class/child mobility within the school and classroom space, tolerance of different individual work styles, differential use of materials exhibited and encouraged, tolerance of the unusual, flexibility of ideas and plans, etc. This measure is concerned with the social structure available from those

provisioned materials and experiences. It allows for how the props and stage of the classroom will be used and as such is also very related to the Openess variable which allows for the psychological setting of this same stage.

The Openness Variable observed via and limited in this study to Open Stances was defined as follows:

1) Openness was here defined as that component of teacher participation which interpersonally creates the psychological structures within the classroom, the mileu and feeling level. It was observed through the use of physical stances of the teacher as indicators of degrees of possibilities and relationship available in that classroom.

2) Stances were the physical postures teachers took in their natural functioning in the classroom. They were judged to be 1) Open or 2) Closed by the definitions of Goffman and Scheflen (See Table 5). Within these definitions they were indicators of the teacher's 1) feelings, understanding and role within that situation, 2) how those feelings generalize to the others in the situation, and 3) what interactions, relationships, options the teacher leaves open in a given situation for all participants.

Table 5

Stance Definitions and Body Cues

Open		Closed	
Head	1) up or ahead toward focus 2) neck relaxed	Head	1) down or aside 2) neck muscles tense
Eyes	1) in contact 2) open	Eyes	1) look down, over or away 2) partly or all closed
Mouth	1) relaxed 2) smile	Mouth	1) tight,drawn 2) frown
Body	1) trunk not covered or protected or hunched over 2) straight toward focus	Body	1) trunk bent and/or covered to protect 2) turned aside
Arms	1) loose 2) inside part open to view	Arms	1) tight, close to body 2) inside parts protected from view
Hands	1) palm open and toward focus 2) fingers loose 3) relaxed	Hands	1) palms toward body 2) fists tight 3) fingers curled, tight 4) tense
Legs	1) inside thighs visable 2) loose 3) if crossed, opposite thigh visable	Legs	1) thighs, inside protected from view 2) tense, close together 3) legs crossed to protect from view

Dependent variables were defined as follows:

1) Student Engagement referred to the child's involvement in and attention to his task. A child was engaged if he was centered or focused on his task. Non-Engaged Behavior was identified as behaviors such as 1) disturbing or bothering other children, 2) day dreaming or gazing off into space, 3) waiting around with nothing to do, 4) running around the room. It should be noted that if a child were 1) running or walking around the room or 2) gazing into space at the beginning of his 5 second observation frame the observer followed through on the child's pattern to see if there was un-observable attending occuring that could be deduced at the end of the walking or gazing. For example if a child working out a problem looked up from his work and appeared to be gazing aimlessly into space (as he internally worked out a solution in his head) and then went dilegently back to his work upon coming to internal solution; or if a child got up and walked around the room looking at books and objects in what appeared aimless fashion then found what he was looking for and was again intent on his work. He was never really interrupted but actions only appeared aimless in the brief time frame observation. This follow-through procedure was used in the Arlin study. (1974)
2) Student Focus was used as the term designating the activity to which a child was giving his concentration and attention. The

focus was divided for this study into two areas: A) Traditional Activities, B) Non-traditional Activities.

3) Traditional Activities were here defined as in the Arlin study (1974): 1) writing with a paper and pencil, 2) reading a book, 3) listening to the teacher, 4) coloring with a crayon, 5) doing workbook exercises, 6) waiting for the teacher - i.e. hand up, beside the teacher in expectant mode, etc., 7) answering a teacher - directed question, 8) taking part in a total class activity, etc.

4) Non-Traditional Activities were those activities other than traditional such as peer work, learning games, attending to animals, experimenting, painting, constructing, or working with concrete materials. Also in this category were unorthodox ways of doing traditional work such as a child on the floor under a table in the science corner writing a story about the pet mouse in the cage beside him.

Development of Instruments

Instruments compiled and used for this study are found in the appendices and included the following:

1) Classroom/Teacher Rating Scale

Provisioning, Facilitation, Flexibility/Mobility Tolerance appeared measureable through operationally defined items of classroom life which could be observed and rated within the classroom situation. To choose the operational items for this scale, all items on the instruments of Walberg and

Thomas (1971), Evans (1971), Mattick and Perkins (1972) and Arlin (1974) and implied items from the work of Chittendon and Bussis (1970), Meisels (1973), Taylor (1971), Weber (1971) Plowden (1967), Smith B. (1970), Good and Brophy (1973), Eisner (1969), and Francis Hawkins (1969) were examined with regard to their relationship to the 6 teacher participation issues and the 3 variables defined. Many items were included, redefined, or reclassified for use in this study.

As a result the researcher constructed a Trial Classroom/Teacher Rating Scale composed of as many items as necessary to cover each variable as adequately as possible from different vantage paoints. This original scale consisted of 160 items.

2) Teacher Stance Rating

The Open Stance Variable discussed earlier was felt measurable through observer judgements within the classroom following instruction in the observing of stance cues via Goffmanian definitions.

To allow for a number of judgements on a teacher's classroom stances, it was decided to construct a sequence of two observation periods, each consisting of ten stance judgements, on a five second time lapse schedule with the observer looking away from the teacher between judgements. These two rating periods occurred at different, non-contiguous, times during the total observation period. This then resulted in twenty stance judgements per subject as data indicating a teacher's

pattern of interactive stances within the classroom and thus the level of openness the teacher conveyed non-verbally to the student.

Observers recorded a judgement of Open or Closed to each stance within the sequence. Observers also recorded if the stance was in contact with another person or not in contact and therefore an isolated stance. The contact data is not part of this thesis material and will be reported elsewhere. The form used for Teacher Stance Rating will be found in Appendix E.

3) Student Engagement and Focus Rating

Students Engagement and Focus were felt readily observable in the classroom and scheduled into two observation sequences (or sweeps) during each classroom observation period. Each observation and rating sequence involved a five second observation period of each child in the classroom during the time of the sequence. Each child was judged to be engaged or not engaged (on task or off task) via the definition stated previously. If the child was on task, a judgement was made as to the activity of his focus and whether it was Traditional or Non-Traditional as defined previously. The two Student Engagement sweeps of the classrooms were done at the beginning and the end of each observation period in a classroom. The classroom Student Engagement Focus figures are a combination of the data on these two sweeps converted to percentage figures for ease of comparison due to classroom size differential. The form for Student Engagement and Focus is found in Appendix F.

Examination of the Trial Scale with the intent to cut all but the most predictive items for each variable was done by the researcher.

This resulted in a Pilot Scale of useable length which was then examined for clarity of item intent, corrections, additions, and/or deletions by a panel of six teachers with experience in the open classroom in America. The panel suggested the combination of two items and the inclusion of two deleted items from the Trial Scale. Several items were reworded, rephrased, revised to the satisfaction of the panel.

The Scale then consisted of 50 items to be rated on a 1 (low) to 4 (high) scale by classroom observers.

Following a trial run with the Scale by the researcher, one additional item was added and the final Scale consisted of the 51 items (17 Provisioning, 18 Facilitation, 16 Flexibility/Mobility Tolerance) . The final Scale is reproduced in Appendix D and Item Sources reported in Appendix G.

Reliability of Scale Instrument

An odd/even split half reliability test was made on the data collected via the Scale, and Coefficient of Equivalency (computed by the Spearman-Brown Formula) of .8834 was established for the total Scale. Since the Scale was distinctly measuring three separate variables each variable was also divided by odd/even items to compute a Coefficient of Equivalence. (See Table 6)

Since the Split Half reliability test and corrections, such as Spearman-Brown Formula, result in what would be regarded as the upper limit of reliability it can be said that the total scale upper limit

reliability was established at the 88% level and the individual variable scales resulted in slightly lower Coefficients of Equivalency, but all between 80% and 86%.

Table 6

Teacher/Classroom Scale Reliability Data

Measure	Split Half	Pearsons r	significant.	C. of E.*
1. Total Scale	odd/even	.7921	.001	.8834
2. Facilitation Items	odd/even	.7045	.001	.8266
3. Flexibility/ Mobility Items	odd/even	.7518	.001	.8583
4. Provisioning Items	odd/even	.6625	.001	.7969

* Coefficient of Equivalence

As further confidence of the scale reliability 6 items were taken directly from the Walberg and Thomas (1971) and Arlin (174) Instruments, (iemts 9, 12, 34, 36, 38, 42) and 28 items were taken in revised or expanded form from Walberg and Thomas and Arlin (1974). The direct items received a cummulated mean score of 2.49 on the Walberg/ Thomas 3 point scale of importance in ratings from open education experts. This is an indication of their appropriateness but no comparable reliability scores are obtainable from the Walberg and Thomas data. The Arlin study established a reliability score of but it was not reported for each item. The researcher established both Rating Scale and Attending Scale interrater reliability with the Arlin research team during the collection of their data in Spring, 1974. Scale score interrater reliability was .92 and attending scale interrater reliability was .97. These are only partial measures in

the process of establishing reliability but are indications that both scale and findings have some reliable comparative values. More appropriate reliability and validity measures were not possible due to time and accessibility problems in the British system.

Observers and Observation Process

Observers in this study were four persons from the following educational levels: A Ph.D in education; a masters in Education; a masters candidate in educational research and psychology, and the researcher. All four were females with classroom experience. Observer interrater reliability was obtained through joint observations of classrooms on July 1, 9, 15, 16, 17. Interrater reliability was established overall at .94 level between observers and the researcher. The interrater reliability on each measure was as follows:

Table 7

Interrater Reliability Data

Classroom/Teacher Rating	= .90
Child Attending Rating	= .96
Teacher Stances/Contact	= .96

Prior to each research visit arrangements were made through college channels and visits scheduled at school convenience. Observers were always expected at the school and their presence scheduled to suit the pattern of the individual school day.

Observers were instructed to: 1) Enter each classroom and observe general classroom flow, finding places for unobtrusive yet clear observation with the room before beginning the recording process. 2) Make first five second time lapse sweep of the classroom on the Student Engagement and Focus Rating, beginning five seconds after a

designated ready point. 3) Observe teacher and make first Teacher Stance Rating on a five second time lapse, 10 stances schedule, being careful to look away from the teacher between segments. 4) Complete Classroom/ Teacher Rating Scale moving about the classroom as necessary, taking a reasonable amount of time to observe and seek indicators of items; if unable to answer an item, leaving it and if an answer is indicated later during the total observation period filling it in at that time. 5) Make second Teacher Stance Rating: 6) Make second Student Engagement and Focus Rating. 7) Check over Classroom/Teacher Rating Scale to be sure all items that are answerable have been rated before leaving. In general be unabtrusive, pleasant, uninvolved, but interested, in your approach to the class. Answer children's questions briefly and simply with statements supportive of the child and his role in school. ("I'm here seeing the good things children are doing in their schools in England" etc.)

Observations on school convenience schedule were conducted over a three week period. Observation times varied per observation but averaged between 35 and 50 minutes per classroom depending on classroom patterns and interruption or delay of observer flow due to schedule, or child interest in observer, which was consistently high in the first minutes of each observation and continued longer in some classrooms before normal patterns were restablished, and other varied occurrences.

CHAPTER IV

RESULTS

This chapter reports the results of data analysis and disposition of generated hypotheses. Discussion and additional observations are contained in Chapter V. Results are presented in order of the hypothesis generated and stated in Chapter I.

Analysis Procedures

The statistic used for indicating the major findings of relationships between variables was Kendall's Tau. It suits ordinal rank order data with possible numerous tied ranks. Kendall's tau can be interpreted as indicating the amount of reduction in error in the estimation of the relationship between any two variables under consideration as distinguished from chance relationship.

All comparisons reporting statistically significant correlations at the $p \leq .05$ level were considered of theoretical interest given the size and composition of the sample. Kendall's tau scores within the significance range were grouped by the degree of relationship. Statistically significant Kendall's tau scores equal to or smaller than .249 were considered to indicate a weak significant correlation. Correlations at the .25 to .55 levels were considered moderate to moderately strong (anything over .40 considered moderately strong). and correlations .56 and above were considered to be strong correlations. It should be remembered that as with any statistical analysis the margin of error is built in. Controls were used to attempt to

minimize these statistically possible error effects but control cell size limitations made controls statistically impossible. The sample size and the degree of high scores observed made cell size for many of the controls too small for any significance to be found despite the observable pattern. Given larger cell size, this pattern would perhaps have produced significance. Therefore, as a base for comparing the of each variable was made at the Mean, and correlation coeffecients were computed via chi square to be used a a base for comparing the additive effects of variables together upon Student Engagement. A series of contingency tables and correlation matrices were constructed to represent the findings of variable effects and interactions. Descriptive statistics (mean, sd, median, range, standard error, mode, variance) were produced for all variables and the dependent measures as well as for each teacher and are reported on Table 8 and 9.

Hypothesis 1:

"Student Engagement percentages in the British informal classrooms will be high."

This hypothesis of high overall Student Engagement was upheld. The mean classroom engagement percentage was established at 84% with a s.d. of .087. The average classroom exhibited 84% attention to learning tasks. In comparison, Hess found a mean engagement rate of 78%, though no classroom style differentiation was made (Hess, 1973). (see Table 8)

Table 8

Variable Descriptive Statistics

Variable	X	S D	max	min	range	std. error	mode	median	variance
Provisioning (Scale Score)	59.18	7.98	68.00	30.00	38.00	1.202	64.00	61.5	63.59
Facilitation (Scale Score)	56.80	9.96	72.00	32.00	40.00	1.501	72.00	58.50	
Flexibility/ Mobility (Scale Score)	51.11	8.99	62.00	16.00	46.00	1.36	50.00	52.50	
Provisioning (Item Score)	3.48	.47	4.00	1.77	2.23	.07	3.77	3.62	.22
Facilitation (Item Score)	3.16	.55	4.00	1.78	2.22	.08	4.00	3.25	.31
Flexibility/ Mobility (Item Score)	3.20	.56	3.88	1.00	2.88	.09	3.13	3.28	.32
Classroom/ Teacher Scale Score	3.28	.44	3.96	1.87	2.09	.07	2.99	3.33	.20
Open Stances	14.64	5.08	20.00	0.00	20.00	.77	20.00	15.70	25.77
Student Engagement	.84	.09	.98	.60	.38	.01	.88	.85	.01
Traditional Focus	.41	.22	.84	.02	.82	.03	.21	.40	.05
Non-Traditional Focus	.43	.23	.90	.00	.90	.04	.24	.43	.07

Hypothesis 2:

"There will be no significant differences in percentages of students engaged in traditional and non-traditional activity focus in these classrooms."

This null hypothesis on child focus was upheld. The classroom mean percentage of Student Engagement in Traditional Activites was 41% (s.d. = .29) and the mean percentage of Student Engagement in Non-Traditional activities was 43% (s.d. = .26). Neither focus had a significant percentage advantage. (See Table 8)

An interesting unpredicted finding between Student Focus and Student Engagement will be discussed following Hypothesis 7.

Hypothesis 3:

"High levels of Provisioning, Facilitation, Flexibility/Mobility Tolerance, and Open Stances will be found in these classrooms."

This hypothesis was upheld. Scores revealed that the Modes for Provisioning, Facilitation, Flexibility/Mobility Tolerance and Open Stance judgements were high. (Provisioning = 3.77, Facilitation = 4.00, Flexibility/Mobility Tolerance = 3.13, all on a 4.00 scale; Open Stances = 20 on a 20 stance basis.) Most classrooms exhibited extremely high incidence of these teacher variables. The means are equally as encouraging: Provisioning = 3.48; Facilitation = 3.16, Flexibility/Mobility Tolerance = 3.19; Open Stances = 14.64. Table 8 shows the complete figures on the incidence of each overall variable. Table 9 show individual teacher statistics for each variable.

Table 9

Individual Teacher Mean Scores

On All Variables

Teacher	Provisioning	(s.d.)	Facilitation	(s.d.)	Flexibility/ Mobility	(s.d.)	Scale	Open Stances	Student Engagement	Traditional	Non-Tradtional
01	3.24	.67	3.11	1.08	3.19	.75	3.18	14	.80	.50	.30
02	3.65	.61	3.50	.51	3.75	.45	3.63	15	.94	.04	.90
03	3.88	.33	4.00	.0	3.38	1.15	3.75	17	.88	.67	.21
04	3.77	.44	3.89	.32	3.69	.60	3.78	20	.98	.13	.85
05	3.94	.24	4.00	.0	3.88	.34	3.94	16	.93	.24	.69
06	3.94	.24	3.44	1.29	3.44	1.09	3.60	20	.87	.02	.85
07	3.24	1.03	3.00	1.46	2.13	1.54	2.79	19	.76	.76	.0
08	3.71	.77	3.61	.61	3.06	1.00	3.46	14	.85	.70	.15
09	3.57	.62	2.94	.64	2.44	.89	2.99	13	.73	.69	.04
10	3.29	.92	2.44	1.15	1.69	.70	2.47	0	.65	.44	.21
11	3.88	.33	3.94	.24	3.44	.89	3.75	19	.94	.38	.56
12	3.94	.24	3.44	1.04	3.59	.89	3.63	11	.73	.29	.44
13	3.65	.61	2.50	1.34	3.25	.68	3.13	14	.95	.66	.29
14	3.41	1.00	2.56	1.46	3.50	.52	3.16	16	.89	.27	.62
15	3.65	.49	3.00	1.19	3.63	.50	3.43	20	.96	.54	.42
16	3.88	.33	3.72	.46	3.50	1.03	3.70	18	.89	.51	.38
17	3.77	.44	3.28	.96	3.56	.51	3.54	13	.93	.84	.09
18	3.71	.47	2.94	1.43	3.63	1.50	3.43	17	.74	.50	.24
19	3.77	.44	3.33	.97	3.69	.60	3.60	16	.96	.21	.75
20	3.88	.33	2.61	1.24	3.75	.45	3.41	13	.85	.21	.64
21	2.65	1.80	2.44	1.42	3.19	2.11	2.76	11	.96	.50	.46
22	1.77	1.95	2.83	1.47	1.00	1.55	1.87	9	.78	.77	.01
23	3.77	.44	3.61	.98	3.69	.48	3.69	19	.84	.20	.64
24	3.77	.44	3.67	.49	3.63	.50	3.69	16	.84	.18	.66
25	3.77	.44	3.61	.98	3.56	.51	3.65	19	.82	.34	.48
26	3.47	.72	3.89	.32	3.38	.62	3.58	19	.93	.34	.59
27	3.53	.62	4.00	.0	3.44	.51	3.66	19	.82	.56	.26
28	4.00	.0	3.44	1.29	3.31	1.35	3.58	18	.84	.59	.25
29	4.00	.0	3.37	1.29	3.38	1.09	3.59	18	.84	.43	.41
30	4.00	.0	2.61	1.91	3.13	1.59	3.25	18	.80	.56	.24
31	3.47	1.01	3.00	1.46	2.94	1.24	3.14	20	.60	.49	.11
32	3.35	1.00	2.56	1.50	3.13	1.09	3.01	16	.77	.44	.33
33	3.06	.75	2.50	1.20	3.00	.89	2.85	18	.80	.30	.50
34	3.35	.49	1.78	1.70	2.44	1.37	2.52	10	.89	.02	.87
35	2.41	.80	2.56	1.71	2.63	.81	2.53	3	.76	.39	.37
36	3.12	.93	3.33	.84	3.13	.89	3.19	15	.89	.26	.72
37	2.65	.70	3.28	.75	3.13	.96	3.02	8	.79	.33	.46
38	3.29	.59	2.50	1.10	3.13	.81	2.97	1	.77	.74	.03
39	3.12	.86	3.22	.73	3.06	.77	3.13	13	.88	.41	.47
40	3.18	.88	3.33	.69	3.19	.54	3.23	11	.73	.36	.37
41	3.24	.75	2.67	.77	3.06	.93	2.99	9	.88	.14	.74
42	3.24	.75	2.67	.77	3.06	.93	2.99	10	.88	.14	.72
43	3.24	.75	2.67	.77	3.06	.93	2.00	14	.83	.59	.24
44	4.00	.0	4.00	.0	3.88	.34	3.96	20	.88	.21	.67

Hypothesis 4:

"Provisioning, Facilitation, Flexibility/Mobility Tolerance, and Open Stances will be highly interactive and will show high intercorrelations."

This was upheld. All correlations were at the $p < .001$ level or higher. Results are shown in Table 10.

Table 10

Kendal Tau Correlation of Teacher Variables*

	Provisioning	Facilitation	Flexibility/ Mobility	Open Stances
Provisioning		.3777	.4597	.4381
Facilitation	.3777		.4180	.3916
Flexibility/ Mobility	.4597	.4180		.3321
Open Stances	.4381	.3916	.3321	

* all at $p < .001$ level or higher

Intercorrelations were positive and high. All pairs produced moderate to moderately strong correlations, ranging from +.33 to +.46.

An important segment of this hypothesis was the correlation of Open Stance and non-verbal teacher self-presentation judgements with more conventional evaluative classroom elements. This was obviously upheld and is an important finding.

Hypothesis 5:

"Provisioning alone will not show a significant correlation with Student Engagement."

This hypothesis was upheld. The incidence level was high as indicated and predicted, however, the correlation between Student Engagement percentages, and Provisioning was .1362 ($p < .10$ level) and not singly significant. (See Table 11)

Hypothesis 6:

"Facilitation and Flexibility/Mobility Tolerance will correlate significantly and in that order with Student Engagement."

This hypothesis was partly supported. Facilitation and Flexibility/Mobility Tolerance were significantly correlated but the expected order of importance was reversed. Facilitation reached a weak significant correlation of .1810 $p<.05$, while Flexibility/Mobility Tolerance attained a moderate correlation of .3398 at the $p < .001$ level. Table 11 contains the complete correlation matrix for all variables.

Hypothesis 7:

"The higher the correlation between Provisioning, Facilitation, Flexibility/Mobility Tolerance and Open Stances and the greater the incidence level of these variables in a classroom the higher the Student Engagement level will be."

This hypothesis was supported. The overall Classroom/Teacher Rating Scale mean scores correlated significantly with Engagement (.27 $p < .01$). However, since Provisioning singly did not reach significant correlation with Student Engagement, until this relationship was examined via contingency tables representing the division

Table 11

Kendall tau

Variable Correlation Matrix

	Student Engagement	Provisioning	Facilitation	Flexibility Mobility Tolerance	Scale Score	Open Stances	Traditional Focus	Non-Traditional Focus
Student Engagement		.1362	* .181	*** .3398	** .2715	.1656	* -.2084	*** .4193
Provisioning	.1362		*** .3777	*** .4597	C *** .5914	*** .4381	-.0612	.1004
Facilitation	* .1810	*** .3777		*** .4180	C *** .7364	*** .3916	-.1158	.1664
Flexibility/ Mobility	*** .3398	*** .4597	*** .4180		C *** .6609	*** .3321	** -.2677	*** .3520
Scale Score	** .2715	C *** .5914	C *** .7364	C *** .6609		*** .4660	* -.1821	** .2471
Open Stances	.1656	*** .4381	*** .3916	*** .3321	*** .4660		-.0353	.0893
Traditional Focus	* -.2084	-.0612	-.1158	** -.2677	* -.1821	-.0353		Reverse
Non-Traditional	*** .4913	.1004	.1664	*** .3520	** .2471	.0893	Reverse	

* = p < .05

** = P < .01

*** = p < .001

C = Vairable is part of combined score

of the subjects into High and Low group classifications on each independent variable (division at the mean) it was unclear what the real relationship was. Controls to report this relationship statistically proved impossible due to cell size. This was also obvious from the contingency table. (See Table 12) An observable relationship pattern was produced supportive of the hypothesis.

For a clear picture of this interactive effect upon Student Engagement it was important to examine the additive effects of the intercorrelated variables upon Student Engagement.

Basic chi square and correlation coefficient statistics were computed for each variable with Student Engagement by the High and Low group divisions at the variable means. These High/Low correlation coefficients served as base measures of how strong the additive two-variable effect was in comparison to the single-variable effect upon Student Engagement.

Individual and additive effect results are presented in Table 13. Variable correlations on the High/Low group comparisons produced significance for all Classroom/Teacher Scale variables (Provisioning = .33 $p < .02$; Facilitation = .39 $p < .01$; Flexibility/Mobility Tolerance = .46 $p < .001$) but not for Open Stances (.23 $p < .13$).

Single and additive effect are represented in the contingency tables of Table 14. All additive variable effects were significant above $p < .05$ with Student Engagement and all but the combined effect of Provisioning and Openness were significant at or above the $p < .01$ level. The increase of additive effects over single variable

Table 12

Contingency Table of Student Engagement by all High/Low Groups of All Variables

	Facilitation: High		Facilitation: Low	
	High Open	Low Open	High Open	Low Open
High Flexibility/Mobility / High Provisioning	15	1 / 1	1 / 1	2
High Flexibility/Mobility / Low Provisioning	1		1	
Low Flexibility/Mobility / High Provisioning		1	1	1
Low Flexibility/Mobility / Low Provisioning	1	1 / 2	4	5 / 5

* Student Engagement Scores represented by divided square

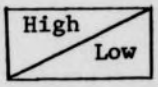

Table 13

Comparisons of Single and Two Variable Effect with Student Engagement

Single Variable Effect									Additive Two Variable Effect							
	Provisioning	Facilitation	Flexibility/ Mobility	Open Stances	Student Engagement		chi square	correlation coefficient	Provisioning	Facilitation	Flexibility/ Mobility	Open Stances	Student Engagement		chi square	correlation coefficient
									X	X			X	=	11.76	.46**
									X		X		X	=	13.94	.46**
	X				X	=	5.53	.33*	X			X	X	=	8.69	.41*
									X	X			X	=	11.76	.46**
										X	X		X	=	15.60	.51***
		X			X	=	7.64	.39*		X		X	X	=	15.07	.51***
									X		X		X	=	13.94	.49**
										X	X		X	=	15.60	.51***
			X		X	=	11.57	.46**			X	X	X	=	16.48	.52**
									X			X	X	=	8.69	.41*
										X		X	X	=	15.07	.51**
				X	X	=	2.34	.23			X	X	X	=	16.48	.52***

* = p < .05
** = p < .01
*** = p < .001

correlations was support for the intervariable correlations reported and also for the effect of the observable pattern represented by the findings in Table 14.

With this evidence it is possible to say that results showed the support of Hypothesis 7 and also revealed it to be more important than previously thought. The following findings became relevant:

1) 15 teachers had high scores on Provisioning, Facilitation, Flexibility/Mobility Tolerance, Open Stances and on Student Engagement;
2) 18 teachers had high scores on three or more of those variables and Student Engagement;
3) only 15 classes had a lower than mean Student Engagement score;
4) 5 of those 15 classes had teachers scoring low on all variables;
5) 12 of the 15 low Student Engagement classes had teachers only scoring high on one independent variable.

All these findings became important although statistical proof could not be shown due to small cell size.

Student Engagement was indeed present when teachers scored high on Provisioning, Facilitation, Flexibility/Mobility Tolerance, and Open Stances and was more likely to be present when three or more variable scores were present at a high level together than for any one measure alone.

Additional Finding

An unexpected but relevant finding surfaced in the relation between Student Focus and Student Engagement. As expected, no

Table 14

Contingency Tables of Single and Two Variable Effect with Student Engagement

Variables		Student Engagement	
		High Scores	Low Scores
Provisioning			
	High Scores	11	9
	Low Scores	4	20
Facilitation			
	High Scores	12	9
	Low Scores	3	20
Flexibility/Mobility			
	High Scores	13	8
	Low Scores	2	21
Open Stances			
	High Scores	9	6
	Low Scores	9	20
Provisioning and Facilitation			
	High Scores	17	1
	Low Scores	6	9
Provisioning and Flexibility/ Mobility			
	High Scores	19	2
	Low Scores	7	11
Provisioning and Open Stances			
	High Scores	16	2
	Low Scores	6	7
Facilitation and Flexiblity/ Mobility			
	High Scores	17	1
	Low Scores	5	11
Facilitation and Open Stances			
	High Scores	17	0
	Low Scores	7	6

Table 14 (continued)

Variables		Student Engagement	
		High Score	Low Scores
Flexibility/Mobility and Open Stance	High Scores	18	1
	Low Scores	7	8
All Variables	All High Scores	15	0
	All Low Scores	5	5
Three or More Variables	Three or More High	18	2
	Three or More Low	5	11

significant differences were observed between Traditional and Non-Traditional Classroom Focus percentages, as reported for Hypothesis 2. However, when examined singly, a high correlation appeared between Non-Traditional Focus and Student Engagement. The Kendall tau r of .4193, $p < .001$ was the strongest relationship singly observed with Student Engagement. (See Table 11)

Traditional activity Focus examined singly in relation to Student Engagement resulted in a negatively significant correlation at a weak level (- .2084, $p < .05$)

The only other significant correlations found with Student Focus variables were with Flexibility/Mobility Tolerance and overall Teacher/Classroom Scale Means as reported on Table 11.

CHAPTER V

DISCUSSION AND IMPLICATIONS

The major findings of the study are discussed here. Focus is on the variables at issue rather than on the hypothesis.

The first issue addressed relates to Student Engagement, including discussion of Student Focus and the inter-relationship of these two variables. It is impossible to discuss Student Engagement without considering the independent variables as well.

The second issue has to do with the major findings related to Open Stances.

The third issue addressed is that related to the variables of Provisioning, Facilitation, Flexibility/Mobility Tolerance and the intervariable effects of these together and with Open Stances.

Major Findings in Relation to Student Engagement and Student Focus

The Student Engagement of the observed British classrooms was high, as the 84% mean classroom engagement rate indicated. Also of importance to this issue would be the minimum Student Engagement percentage observed at 60% and the mode recorded at 88% with a s.d. of only .09 and a standard error or only .01. Engagement percentages were consistantly high over the 44 classroom sample. The Hess study reported a 78% Student Engagement mean by comparison. The high degree of Student Engagement and the low percentages of non-engagement behaviors observed should be an indication that the critic's fears of classrooms where children are out of control or not in a learning frame-

work are unfounded in these classrooms. The classrooms observed proved to be the productive, busy places reported by the proponents in their glowing descriptions.

Reaching conclusions about the role the teacher's participation is contributing to the Student Engagement in these classrooms is more difficult. As reported the results of this study showed that high incidence of Provisioning alone could not produce significant levels of Student Engagement. This is an answer to the failure of some attempts at open classrooms in America where the assumption has been that changing the props and the staging would produce the desired effect of student interest and involvement. It clearly supports the Marsh statements on Provisioning along this line. (See Chapter III) More than Provisioning is necessary. Provisioning is a "necessary but not sufficient cause" of Student Engagement in informal classrooms, in a truely Piagetian sense.

The remaining teacher variables of Facilitation and Flexibility/Mobility Tolerance did singly produce significant correlations with Student Engagement. It was expected that Facilitation would be the stronger variable, indicating the way the teacher extended learning was more important, but this was not the case. The significant reversal of the expected strength of these two variables resulted in Flexibility/Mobility Tolerance emerging as the strongest variable key to Student Engagement. This is supportive of the conclusions reached by Hess (1973) that Student Engagement, though not related to a particular strategy as measured by that study was related to systematic variation in educational environments and to situational

strategy changes by teachers. This implies Flexibility/Mobility Tolerance as defined by this study. For Hess the strongest correlation with Student Engagement was with small groups size. This also implies Flexibility/Mobility Tolerance and Facilitation as defined by this study. Evans findings (1971) did not deal directly with Student Engagement but components exhibited strongly by the open classrooms included deeper involvement in activities which implies Student Engagement and the remaining components were all indicative of Flexiblity/Mobility Tolerance (children talking freely, moving freely, grouping and scheduling flexibility, variety of materials and activities). This would all tend to support the finding of Flexibility/Mobility Tolerance acting in a key role in these classrooms. This implied that the answers to the participation issues involved in that variable are the key issues singly to be faced by the teacher seeking to upgrade Student Engagement in the classroom. This involves 1) "What the teacher gives her approval to in how children use, approach, work with, extend, and complement the things the teacher has provided and the learning children are experiencing, and 2) how the teacher views children and their role in their own learning and that of their peers." This is further supported by the unexpected finding the greatest correlation with Student Engagement was from Non-Traditional Activity Focus. This will be discussed later.

Perhaps the most important fact the results indicate is that the interactive effect of all the variables (Povisioning and Open Stance included) has the greatest chance of producing high Student Engagement. In fact, the incidence of occurrance together in the production of

Engagement made it impossible to use statistical controls to prove significance because only 19 teachers did not have a perfect correlation with either all High on the variables and High on Engagement or all Low on the variables and Low on Engagement. In fact, Student Engagement was so high in thepresence of these additive variables, 21 of 29 teachers High on Engagement were either all High or all Low for all measures. The cells remaining were simply too small to reach any statistical levels. However, observing the patterns produced in the intervariable and Engagement contingency table (Table 12) it became clear that the presence of three or more of these variables together was a better indication than any one variable alone that Student Engagement would be high. It was impossible with this sample to institute further controls to ascertain true variable effect within this highly correlated team of variables. Further research with these variables on a larger population may be able to make such an effort possible. However, in this study they appear as highly correlated and additive in their impressive effects upon Student Engagement. It should be remembered that the Hess study (1973) found the same pattern existing in slightly varied form. Student Engagement was highest for the teachers in the highest quartile of scores as a group and in examining high and low groupings very distinct patterns (with cell sizes too small for statistical proof) were observable.

This implied that the balance of all the teacher participation issues involved in the variables may be the ultimately strongest solution, and a consistent teacher presentation represented through all variables is paramount. The one participation issue which effects all

variables is "How the teacher views children and their role in their own learning and that of their peers." (See Table 1) It is possible that this philosophical issue is the connecting thread that produces the additive effect. Closer examination of this is possible through selection of variable items that relate to this issue and reexamination of the data and retesting on other populations to observe the effect upon the stated variables and the child philosophy variable. It is a needed research point and related both to the Child Participation level in the Chittendon and Bussis work (1970) and to the stated assumptions about learning and children in the Walberg and Thomas research (1971).

The strange cell in the intervariable Student Engagement contingency table (Table 12) where 5 classrooms exhibited high Student Engagement while teachers had low scores on all teacher variables can possibly be explained by the findings that the other element significantly correlated with Student Engagement was an unexpected relationship with Student Focus on Non-Traditional Activities. In 4 of those 5 cases high scores on Student Focus on Non-Traditonal Activites was present. Non-Traditional Activity Focus singly produced the highest correlation with Student Engagement overall ($r = .42$, p .001) This is even more interesting when it is known that no significant difference was found in incidence of Traditional and Non-Traditional Activities Focus. Both types of activity occurred equally in the population. However, when examined singly the presence of Non-Traditional Activities at a high percentage level received the highest correlation with high overall Student Engagement percentages.

Examination of the interaction between Non-Traditional Focus and the other teacher measures, already shown so active together in the production of Student Engagement, yielded the fact that the only teacher variable producing a significant correlation with Non-Traditional Activities Focus was the singly most productive variable in relation to Student Engagement, Flexibility/Mobility Tolerance. This correlation was at $r = .35$ $p < .001$, moderate and highly significant. It would be an expected correlation since the more flexibility the teacher allows and encourages the more unusual learning tasks and working styles are likely to appear in a classroom.

When the effects of Non-Traditional Focus were examined via the High/Low group comparisons (Table 15) in additive multi-variable effect tables, Non-Traditional Focus produced even higher effects on Student Engagement. Teacher Variables additively were productive of Student Engagement; Non-Traditional Focus singly was productive of Student Engagement; no variables except Flexibility/Mobility Tolerance were correlated with Non-Traditional Focus; but active together the additive variable effect and Non-Traditional Focus produced even higher levels of Student Engagement. It appears that since there was both singular and additive effect upon Student Engagement, in cases where the variables were at high levels and Non-Traditional Focus at low levels or vice versa the high element retained control and high Student Engagement resulted. (See Figure 4)

Figure 4

Contingency Tables of All High/All Low Variable Effect with Non-Traditional Focus and Student Engagement

	Student Engagement	
	High Scores	Low Scores
Non-Traditional Focus High and All Variables Low	4	
Non-Traditional Focus Low and All Variables High	6	

After this examination no cells remained where high Student Engagement was produced in situations where either Non-Traditional Focus or Teacher Variables scores were low. This is again strong support for the importance of the Flexibility/Mobility Tolerance participation issues being more central to the Student Engagement issue as they are the recognizable link between the situations which additively produce high Student Engagement.

The patterns produced examining the additive effects of Traditional Focus with the Teacher Variables yielded some intriguing insights as well. (See Table 16) Even though overall high presence of Traditional Activity Focus produced a negative effect upon Student Engagement, in the two variable effect tables in situations where Traditional Activities were high and other Teacher Variable scores were high also, high Student Engagement was the end result significantly in all cases but with Open Stances.

It appears that in situations where a teacher has high degrees of participation in all variables either Non-Traditional or Traditional

Activity Focus can produce significant additive Student Engagement. Non-Traditional Focus produces the higher effect due to it's singular strong correletion as well, but with the additive effect of strong teacher participation variables the negative effect of Traditional Activity Focus on Student Engagement can be erased. This is an important finding. Since there was no significant difference in incidence of Traditional and Non-Traditional Focus and Student Engagement was overall high, high Student Engagement occurred in both situtations. In classrooms where teachers were high in teacher variables the percentages engaged in Traditional Activities were also high in Engagement. In good informal classrooms both types of activities take place equally and are given high attention levels. There is no need to fear the loss of basic skill and traditional work in the informal setting if teacher participation in Provisioning, Facilitation, Flexibility/Mobility Tolerance, and Open Stances is at a high level.

Overall, the major findings in relation to Student Engagement are encouraging. The picture observed is one of high student engagement in classrooms equally involved in traditional and non-traditional activities where teachers are high in provisioning, facilitation, flexibility, and open postures and where allowance of non-traditional activity focus additionally sparks student engagement if teacher participation falls short.

Table 15

Contingency Tables of Single and Two Variable Effect of Non-Traditional and Student Engagement

Variables		Student Engagement: High Score	Student Engagement: Low Score
Non-Traditional Focus	High Score	12	3
	Low Score	10	19
Non-Traditional and Provisioning	High Score	11	1
	Low Score	1	9
Non-Traditional and Facilitation	High Score	13	2
	Low Score	3	11
Non-Traditional and Flexibility/Mobility	High Score	13	1
	Low Score	1	12
Non-Traditional and Open Stance	High Score	13	1
	Low Score	2	9
Non-Traditional and All Variables	All High Score	10	
	All Low Score		5
Non-Traditional and Three or More Variables	All High Score	11	1
	All Low Score	1	10
Non-Traditional = High Scores and All Other Variables Low		4	0
Non-Traditional Low Scores and All Other Variables High		6	0
Non-Traditional Low Scores and Three or More Other Variables Low		5	2
Non-Traditional Low Scores and three or More Other Variables High		8	

Table 16

Comparison of Single Variables and Two Variable Effect of Traditional Focus Upon Student Engagement

Variables		Student Engagement	
		High Scores	Low Scores
Traditional Focus			
	High Scores	5	10
	Low Scores	17	2
Traditional and Provisioning			
	High Scores	8	3
	Low Scores	6	4
Traditional and Facilitation			
	High Scores	8	0
	Low Scores	5	2
Traditional and Felxibility/ Mobility			
	High Scores	8	1
	Low Scores	4	4
Traditional and Open Stance			
	High Scores	6	5
	Low Scores	4	4
Traditional and All Variables			
	High Scores	5	
	Low Scores	3	1
Traditional High and All Variables Low		5	0
Traditional Low and All Variables High		3	1
Traditional High and Three or More Variables Low		3	8
Traditional Low and Three or More Variables High		11	1

Major Findings in Relation to Open Stances

The measurement of Open Stances proved to be a highly correlated variable in relation to the other more traditional measures of teacher participation. It remains open to discussion whether what was measured was indeed Openness or some other phenomenon of physical presence. This question is enhanced by the fact that what could be felt to be a more natural correlation between Flexibility/Mobility Tolerance, which allows for more options and availability on the concrete level, and Openness, which was defined to allow more options on the psychological or unconscious level, was not the strongest correlation although it was significant. ($r = .33$, $p < .001$) Also, while Flexibility/Mobility Tolerance manifested high correlation with Student Focus, Openness did not produce significant correlations with Student Focus. ($r = .0893$) However, the intercorrelation between Open Stances and the teacher variables was high and the intervariable effect on Student Engagement significant. It was an important and non-chance level presence in classrooms observed to have high occurrence rates of all variables. Therefore, regardless of the question of the issue of Openness, Open Stance judgements are an issue that must be faced by educators as an important element effective in the production of Student Engagement at some level.

Intercultural differences in physical stance communication is an important element in this discussion and was the reason only basic definitions of body use were employed rather than more refined details of body language. Perhaps some answers are to be found in closer

examination of teacher classroom presentation both in America and England using more detailed body language cues controlled for cultural differences.

It is the feeling of this researcher that a portion of the psychological/social dimension of "Openness" was captured through the use of Stances and a beginning was made on understanding how Openness can be defined. It is not the whole answer. What can be said is that Open Stances on the part of the teacher are non-verbal cues that aid in production of important effects upon Student Engagement and are found to be significantly correlated with the teacher variables of Provisioning, Facilitation, and Flexibility/Mobility Tolerance. Further work is necessary to continue the defining process of Openness. Further work is also needed, whether ultimately correlated to Openness, in the role of teacher non-verbal communication in the classroom, both in the specific teaching cues and styles examined by Grant and Hennings (1971) and in the Goffmanian sense of social and psychological dimensions that define situations, because this communication level appears to play an active role in classroom definition. It is clear that in Goffmanian sense the ceremonial deference roles and patterns culturally and socially defined within a classroom do play a correlated role in classroom society structure. The understanding of this can have implications for good use of total presentation toward healthier societal roles.

Major Findings in Relation to Provisioning, Facilitation, Flexibility/Mobility Tolerance and Interactive Effects

Perhaps the most valueable finding for the teaching profession would be similar to what the results of this study indicate, that informal British classrooms where children are highly engaged in their learning demand a great deal from their teachers. Certain pilgrims returning from England and describing their observations in retrospect have feared they were describing "Super Teacher" after closely listing the things a teacher does in the most effective classrooms. This study indicated much the same. However, it should be remembered that in describing every one of the classrooms observed for this study the descriptions refer to classrooms regarded by English educators as good examples of informal classroom functioning. These classrooms represented approximations of the ideal and should be productive of outstanding situations for children and examples of effective teachers. What was sought was a differential description, an answer to how these teachers in respected classroom settings solved the issues of participation as they functioned in the classroom. It was clear that the answers found in this study indicate high teacher participation levels and high allowance of child participation in the British classes observed.

All teacher variables showed high levels of presence and significant intercorrelation. The roles these variables played in Student Engagement and Focus were examined previously. The examination of the variables of Provisioning, Facilitation, and Flexibility/Mobility Tolerance using a revised Teacher/Classroom Rating Scale on a larger population would seem the necessary step to full understanding of

the significance of each variable singly and their interactive roles. This study was unable to do this due to sample size. A factorial analysis of the entire item battery would be very illuminating of the relative importance and correlation of each item included in the battery. This research task is a necessary extention of this present study. As indicated earlier an extension of these variables to examine "Child Philosophy" as a separate variable operative perhaps across all variables would be valuable. From the informal observations of these classrooms it appeared that a strong philosophy of the child as active learner was present. It was evident also from multiple notes by the observers that much peer work was done; older children reading to younger ones or lisening to younger ones read, two friends working out a math problem with multi-base blocks, several children charting the measured growth of a plant from a seed, etc. This view of the child and his learning is prevalent as a certain part of Flexibility/Mobility Tolerance and an element of all other variables as well. It deserves full detailed study.

The high correlation exhibited between Provisioning, Facilitation, and Flexibility/Mobility Tolerance and also with Open Stances implies that the underlying teacher participation issues are also highly interwoven. There is an implied need for a balance and consistency in the answering of these issues which when welded into a unit produces a teaching presentation that effectively results in high Student Engagement. It will remain of supreme importance how to uncover the unifying element and the ways in which to reach participation decisions

productive of these results. This speaks loudly to teacher training research and development needs in America.

Results suggest that Provisioning, Facilitation, and Flexibility/Mobility Tolerance are important teacher variables in the British approach. Their careful evaluation is worthy research.

Summary

Student Engagement percentages in the British informal classrooms observed were found high as hypothesized.

The null hypothesis that no significant differences in percentages of students engaged in Traditional and Non-Traditional Activity Focus would be found in these classrooms was supported.

Also supported was the hypothesis that Provisioning, Facilitation, Flexibility/Mobility Tolerance and Open Stance scores for teachers in these classrooms would be high.

The hypothesis that these same variables would be significantly interactive and correlated to each other was upheld. This included the significant correlation of the experimental Open Stance measurement variable to the more traditionally measured teacher variables.

The hypothesis that Provisioning would not singly produce a significant correlation with Student Engagement was upheld.

Partly supported was the hypothesis that Facilitation and Flexibility/Mobility Tolerance, in that order, would produce significant correlation with Student Engagement. Significance was indeed found for both variables but the order of significant magnitude was reversed from the predicted.

Support was demonstrated for the hypothesis that the higher the correlation between Provisioning, Facilitation, Flexibility/Mobility Tolerance, and Open Stances and the higher the level of incidence for each of these variables the higher the Student Engagement level of the classroom. This additive performance at the high incidence level was found active in production of Student Engagement.

Additionally it was found that, examined singly, Student Focus on Non-Traditional Activities was significantly correlated to Student Engagement. It was also found that though Student Focus on Traditional Activities singly produced a negative correlation with Student Engagement, in situations where teacher scores on Provisioning, Facilitation, Flexibility/Mobility Tolerance were high, and Student Focus was on Traditional Activities, the result was prodcution of high Student Engagement. The additive variable effect at the high incidence level overcame the negative correlation between Traditional Activities and Student Engagement.

Implications

Seven major implications are set forth here, centering on what these findings suggest regarding the American educational experience.

First, the findings indicate that critics' fears and popular misconceptions of informal approaches can be proved wrong by the careful examination of good operative classrooms. This study clearly showed that students in informal classrooms were involved in basic skill-traditional activities, equally with non-traditional activities, and that student engagement and task attention in the classroom was not

lost and dangerously weakened in the less formal atmosphere. More studied reports of this nature can begin to dispell fears and misconceptions and make development of informal approaches more acceptable to a skeptical public.

Second, the findings indicate that new approaches and non-traditional activities have a significant value in gaining and maintaining student interest and engagement in the classroom and suggest that particularly the exploration of approaches which focus on child active concrete involvement are of value in promoting learning. Incorporation of active learning at all levels places the child at the center of the learning process where learning can't be "done to him" but he must do it for himself and that creates involvement.

Third, this study indicates that changing the props and staging of the classroom structure through the building of new open schools or the announcing of new open classrooms with large budgetary allowances to meet provisioning needs will not be successfull unless the teachers in those situations are able to answer the participation issues in ways that produce high levels of Facilitation, Flexibility/Mobility Tolerance, and Open Stances in their classroom presentation. America cannot escape the difficult solution that the teacher and not the provisioning is the key to good and effective informal classrooms.

Fourth, the findings suggest an important element found in teachers' participations who score high on Provisioning, Facilitation, Open Stances, and particularly Flexibility/Mobility Tolerance is a philosophy of the child as an active participant and agent in his

own learning and that of his peers. This is a basic philosophical viewpoint and one that is fundamentally at issue with traditional American education which has viewed the teacher as agent in the education of the child and as imparter of knowledge to be taken in passively by the child. The teaching philosophy and the teaching system or approach need to mesh. Unless a change of philosophy is accomplished along with or prior to external changes toward informal approaches no realistic or effective results can be expected. The philosophical issues of participation are ultimately important and perhaps this issue of the child's role in his own learning is the binding factor. This issue itself deserves extended investigation to follow up on some of the Chittendon and Bussis work (1971) and the teacher assumptions in this area outlined by Walberg and Thomas (1971).

Fifth, the findings suggest fundamental change needed in American teacher education practices to facilitate the growth of teachers who can effectively function in informal systems. The teachers in the British classrooms exhibited high levels of Facilitation and Flexibility/Mobility Tolearance and also the type of Provisioning that implies and encourages highly interactive learning environments. American education practices equip teachers to handle passive learning patterns in authoritarian, non-interactive teacher roles. American teachers are generally trained for traditional classroom life in specific methods, not in how to make use of individual child work styles to accomplish a given objective. They are trained in how to use the books or reading series

provided for teaching a specific subject area, and not in how to facilitate a chld's interest through questioning and guiding to primary resources or concrete experiences. They are taught the current series to order, or what commercially-made materials are available to accomplish specified learning tasks, and not how to use an experience to accomplish learning or how to structure an open-ended experience for the benefit of discovery learning. Also, they themselves are often taught only through books and lectures and not through participation. They lack experiences that enable them to face their own participation decisions during their education process. Student teaching experiences in American are most often too short, too instructor-structured, too unconnected to the educational learning in their classwork, and much too late in the educational process. To enable teachers to develop their own answers to the participation issues which build high levels of Provisioning, Facilitation, and Flexibility/Mobility Tolerance in the classroom, American educational institutions must take a lesson from the English teacher training colleges. They must get future teachers into the classroom early in their educational experience and keep them there throughout. They must give them experiences often and in varied situations and roles, and provide them with good models from whom to learn in the classroom. More importantly, education professors must accompany students into working classrooms and student teaching experience on more than an occasional visit basis so that feedback, advice, and modeling are coordinated, direct, and specific.

Sixth, the above change in educational practices implies the infusion into the American educational system of individual teachers

more prepared for creative use of their teaching strengths. This would provide teachers ready to function in open classrooms and schools set up for this purpose. It also implies another level of need. For teachers so trained who are not working within open school situations, it increases the need for administrative change as well to foster autonomy at the classroom and local school level which can enable such teachers to make use of their skills in their classroom. The local autonomy of the Head in the British school has played a large role in the growth of that system. Until new advisory and non-authoritative roles are designed for American educational administrators, teacher experimentation and innovation is politically and practically risky and will not be attempted except by the highly committed, and then in a defensive posture.

Finally, the most important thread that runs throughout the findings reported here is that this system is an interpersonal system. It is built on person-to-person interactions through teacher-to-child facilitative teaching, through child-to-teacher communication and teacher-to-class openness and flexibility which allows for individual expression. A large part of this person-to-person communication in the classroom is verbal and an even greater part may prove to be non-verbal. Open Stances showed high correlation with the other teacher measures and even though this correlation is somewhat unclear, it does show the need for exploration of this aspect of classroom experience. In American teacher training there is little emphasis on the techniques of effective person-to-person listening or talking, and little emphasis on the subtleties of non-verbal communications. Yet

these may play an unrecognized and unexplored major role in a teacher's effectiveness and participation in the classroom. Recognition of this aspect of the teachers' participation is critical for American education processes. Grant and Hennings have begun this process (1971). Goffman speaks wisely to it in indirect ways. (1956, 1967, 1959) Educators must address it's influence and role head-on, and research and experimentation are greatly needed in this area.

The British approach emphasises the individual and communication and interaction within the classroom that is supportive of individual growth. To implement and evolve the open system in America educators must begin to enhance the person-to-person side of education. A beginning is the enhancing of the worth of the teacher. Teacher training and teaching materials and curriculum in America have tended to minimize the teacher and maximize the methods or the materials. America has developed "teacher proof" materials that if used by the book do the job for you so that intuition, thinking, interacting in the learning process by the teacher is not necessary. If we have anything paramount to learn from the British system it is precisely the worth of the teacher. The teacher is the key to effective educational environments. English educational training, methods, and materials emphasize that worth. Far from being "teacher proof", the English materials require teacher thinking, experiencing, interacting, intuiting, adapting for effective use in the individual classroom. The system expects the same. It expects teacher participation that provisions, facilitates, is open, and flexible and exhibits a mobility and allowance of child and program individuality

and expression. This is observable and measureable and worth cultivating. The best is expected of teachers and in turn the best is given. This is a crucial lesson for the American educational future.

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APPENDIX A

HISTORY OF THE BRITISH PRIMARY SCHOOL EDUCATIONAL CHANGE

The image of an English classroom has an even harsher edge than those of America's early Puritan school masters. It has been set in minds minds through literature and legend as Mr. Dickens pictured it. Perhaps that is why the change to informal classroom and the new image of world leader in a child centered approach to education is so difficult to comprehend. Since this change is so drastic, an understanding of some of the milestones along the path of change is necessary and enlightening.

Compulsory education did not come to England by law until 1870. Prior to 1870 there existed two types of schools in England: 1) the upper class "pay for education" independent, private shcools, and 2) elementary schools built by philanthropists or churches to educate the poor. Some of these latter schools dated to the 16th century and were "poorly built boxes designed explicitely to insure only a limited education for the poor" (Blackie 1971). As Mr. Damby said, in Charles Dickens classic, "So far as it teaches them their position and how to conduct themselves, I'm for education" (Blackie 1967). The poor themselves were not always eager for education for their children when the children were needed in the labor market to put food on the table.

When the compulsory education law was passed by Parliament in 1870, many old schools were enlarged, Churches and the School Board built new schools constructed very poorly again to offer education to the working

class to enable them to know as much as needed for their station in life. Education through a Board School was not a way up the ladder. No one who could do otherwise sent their children to Board Schools. These elementary schools for children 5 to 14 years were rough and stern, with few trained teachers.

But it should be stated that the private, expensive schools of that day were also austere, restrictive, harsh places with poorly trained teachers.

During this same period Froeble was beginning his theory and practice of play as the foundation of learning (1885). In 1875 the National Froeble Foundation was founded to spread this theory in the United Kingdom. There was little recognition from the school system that Froeble and the school system were dealing with the same process.

During the early 1900's teacher training began to improve and requirements for teachers then expected more of an applicant than being British (Blackie 1971). Some teachers began to be aware of Froeble and Piaget and Dewey. However, any creative or innovative teacher was isolated and many never heard of the work of theorists that might have supported things that felt right to them in the classroom.

Cauldwell Cook began a whole school based on the "Play Way" in 1919 and was successful, but he was ridiculed and thought not giving "education" to his charges (Cook 1919).

In 1924, the Hadow Committee was commissioned to study elementary education across the Kingdom. Three reports were issued by this committee: Education of Adolescents, 1927, Primary School, 1931,

Infant and Nursery School, 1934. The Hadow Report recommended the dividing of the elementary schools into 1) Primary Schools for children 5-11 years, and 2) Senior Elementary Schools for children 11-14 years (Board of Education; 1927, 1931, 1933).

These recommendations and the Hadow Report itself were big steps toward the results observable today. The Hadow Report was a far sighted, courageous document supporting many of the "crackpot" ideas isolated, innovative teachers had been quietly trying.

The result of the "Hadow split" produced a very unhappy reaction from Head teachers in the elementary schools. The term "decapitation" became popular as complaints abounded that taking away the older children "decapitated" the school and left the Primary school with "just the kids" (Blackie 1971). In retrospect, this very fact was important to system change.

New schools were built for Senior Schools, and much attention given to this new division of higher level students. Little attention was given to the "left over" Primary school where old buildings and unhappy Heads gradually gave away to places where the seeds of the new beginning took root with little attention given given to it.

An important element in this was the English age of school entry which at 5 years (or just below) is below the world pattern of 6-7 year school entry. When the system was divided, this age of entry became an important factor in the Primary School and impetus to the development of different structures, techniques, and philosophy, resembling Froeble's work with the young (Blackie 1971).

As the recommendations of the Hadow Report continued to be implemented (this change was not complete until 1965), the support given by Hadow to innovative work began tentative breakthroughs in the areas of Physical Education and Art in the Primary School where some use of movement and freer artistic expression began (Blackie, 1971).

However, very little happened due to fears on the part of teachers that through experimentation they would lessen the chances of their charges on the important H. M. Inspector 11+ exams which decided at age 11 whether a child could enter Grammar School (the prestigeous higher education school aimed at training the superior student and the upper class for their position and university opportunities of the future) or whether he must enter Senior Elementary School and thus be destined to lower status for the rest of his life.

Then the war broke out. World War II brought evacuation of children from the cities to the country, bombings, the breaking up of the school system. Teachers, sent with the children, found themselves miles from home in unfamiliar places during frightening times, the only link with the children's background and the chief emotional support to fragmented little lives. They were forced into new relationships with the children, out of old ruts and into improvisation and creative makeshift teaching which they brought out of themselves to meet each situation. They observed that real education did take place without the things they previously thought were the backbone of education. They discovered that experiential learning was valueable. Children from the city discovered piles of milk bottles in the fields and delightedly

pointed out the "cow's nest" and teachers began to rethink their educational practices. Widespread questioning occured (Strongman 1974).

After the war these teachers came back a different breed. The entire climate was favorable to change. The need to increase the teaching force resulted in the Emergency Training Course for Teachers (1 year intensive training) which brought many war matured veterans into the school system. Necessary rebuilding of schools after bomb destruction was handled on a post-war budget which resulted in less expensive and smaller schools. All of these things contributed to climates of readiness to search for better individual ways to educate children.

One negative force which also contributed to the perfection of innovation was the passage of the Butler Act of 1944 which abolished all fee paying students in Grammer Schools (Blackie 1971). This meant that no longer could middle class parents who could afford the expense pay to send their children to Grammer School even if they did not score highly enough on 11+ exams to qualify for a position. The resulting storm of parental concern and pressure against innovation which threatened their children's chances on 11+ caused teachers who were innovating to be purposeful and careful about the process and to perfect what they felt was correct through a thorough in-process examination.

In the early 1960's another commission on the Primary Schools was given the task of a national study to follow up the Hadow Report. It came to be known as the Plowden Committee (like the Hadow group, through it's chairperson's name, Lady Bridgette Plowden) and issued it's report in two volumes in 1967. The 1st volume of Children and Their Primary Schools

was the report itself and the 2nd volume consisted of supportive research done for the study. The research is not superior. The report is significant. It was the necessary reinforcement and recommendation of informal classrooms to make these classrooms the model of the stated British educational philosophy and establish them as the model for future growth.

Following Plowden, debate has continued. The Black Papers (Cox and Dyson 1968, 1969) were written by recognized educational authorities in opposition to Plowden and the changes occurring in line with it's recommendations. School construction with open space architecture has developed to meet the new needs of new type schools. (Ministry of Education, 1961, 1964) The 11+ exam has nearly vanished from existence with the new comprehensive Secondary Schools established in the late 50's and 60's serving all levels. Gradual change occurs within each school. Dog-eared Plowden volumes line Head teachers desks as a report and series of recommendations becomes a handbook for educational change. Many visitors from foreign lands come annually to study how these changes are taking place and what is really occurring.

The educational direction here investigated is not complete. It is not static. It is in process. It is exciting to witness and examine.

APPENDIX B

DEFINITION OF BRITISH EDUCATIONAL TERMS

1. "Informal British Infant Schools" (or "Leicestershire Plan", "Integrated Day Plan", "British Primary Schools", "First Schools", "Combined Schools", etc.) - all interchangeable terms used (if any are used) in Britain to designate the approach to primary education which has developed in the last 10 years. This type program now reaches 60-70% of the 5-8 year old children in Britain. (James Porter, class lecture, 1974)
2. Infant Schools - are schools for children 4 or 5-8 years.
3. First Schools - are schools for children 4 or 5-8 years and a new name coined by the Plowden Commission (Plowden Report 1967).
4. Junior Schools - are schools serving children 8-11 years.
5. Middle Schools - are schools serving children 8-12 years and were a recommendation of the Plowden Commission (Plowden 1967).
6. Primary Schools - are schools for children 5-11 years.
7. Combined Schools - are schools serving children 5-12 years and were a recommendation of the Plowden Commission, for areas where First School and Middle School split was not foreseeable (Plowden Report 1967).
8. Local Education Authority or LEA - is the district or region central body of authority, advice. It is the structure for the schools in a given area.

9. Term - is the division of the school year

   Autumn Term - September to Christmas

   Spring Term - January to Easter

   Summer Term - Easter to mid or late July

10. Public Schools - are private fee charging schools (i.e., schools where the students are drawn from the "general public" and not from the specific geographical school area population) (Blackie 1971).

11. Secondary Schools - cover all levels above 11 or 12 years of age (roughly equivalent to American Junior and Senior High School levels).

12. Grammar Schools - are schools which select out or "cream off" the most able primary school students at age 11 years for an academic secondary education of 4 to 6 years. These prestigeous schools are very important in the social class structure of England.

13. Comprehensive Schools - are secondary level schools either for all children in a district or for all who did not go to Grammar School. They operate with academic and vocational programs and sometimes make use of informal methods in modified from at the secondary school level.

14. Head or head teacher or head master (mistress) - is equivalent to the American principal. Heads have autonomous control of the program and policies of the school in their charge. Always the Head is an experienced and respected teacher, often still teaching in smaller schools as well as serving as Head. They spend much more time in classrooms, teaching, assisting, training, planning than in administrative duties.

15. Deputy Head - is the assistant principal level but generally simutaneously a teacher as well; an experienced and respected teacher.

16. The LEA Advisory - is an important aspect of LEA organization where advisors are provided to schools, workshops are conducted, in-service training programs planned and carried out. They provide material and services and professional aid.

17. Advisory Teacher Center - is the LEA center where teachers of an area can concentrate workshops and inservice training. It is an important teacher support and communication arm of the LEA. It has the feeling of a "Union Hall" on the professional level. Invaluable to teachers seeking innovation in schools where innovation is not the mode.

18. Schools Council - the Council for Curriculum and Examination which is a body of teachers under the Department of Education whose task is testing, innovating, approving and then providing curriculum ideas.

19. HMI or Her Majesty's Inspectors - are officers of the Queen who function out of the Department of Education and are advisors to schools in district areas in the role of curriculum consultants. A higher level of the hierarchy and not directly involved in hiring, as is the LEA, therefore, they are freer in the realm of teacher problem communication. Historically, they were the examiners that made hiring/firing decisions and have now reversed that role.

20. Chief Education Officer - is the Head official of an LEA.

21. Central Advisory Council - is the central education coucil responsible for policies, construction, and budgets of L.E.A'a.

22. State Education or State Schools - are LEA schools.

23. Plowden Report - is the popular name of the report of Central Advisory Council Commission on the Primary Schools published in two volumes in 1967 in England. It was called the Plowden Report because Lady Bridgette Plowden was chairman of the commission. Not intended as a handbook to educational change, it has become such as its recommendations have been implemented and reviewed in individual schools (Central Advisor Council 1967).

24. Environmental Education - is an integrated day approach making use of the environment at hand for integrative work (i.e., study of the river running through the town and how it has affected the town's growth, how fast it goes, where it goes, how clean it is, how wide it is, what it's history is, what it feels like, what lives on it and in it, how the locks on it work, etc.).

25. Intake - is entering school and occurs between 4 and 5 years of age, much earlier than most countries. Intake can occur at varied times through-out the year if a school Head desires or at one set time. For example, birthdates have in the past signalled intake and children entered school at the beginning of the term after their 5th birthday, but this has varied with some very young children of working mothers going to school and some Heads being more flexible and allowing entrance between terms as well. Current

recommendation is for one fall intake group of all who would be five during a given year (Baldwin, 1974).

26. Vertical or Family Grouping - is a classroom structure and philosophy through which children are grouped in classes where children of a wide age range are members. It is most prevelant in Infant Schools with children of ages 5-8 years in a single room. Some Junior Schools also vertically group 8-11 year olds, but the top age group about to advance to secondary level are usually separated out for work their last years in Junior School. In this system children enter at 5 years and remain with that group and teacher until they "move up" to the Junior School or Middle School level. This process provides for slow gradual acquiring of basic skills. Older children are models for younger children, opportunities for responsibility are available for the older children, while at the same time it is an important opportunity for older children to continue participation in activities still pleasing (and often still critical to learning) which age-group-dividing labels as "childish". It is common to find several children from one family in the same class as the policy is that this usually provides an easier transition from home to school for the younger ones (Ridgeway and Lawton 1965).

27. Open Education or Open Classrooms - is the American term for the informal system in practice in America and also the informal British system. British educators do not use the term in connection with their system, but in response to the American use of this term recognize and relate to it as appropriate to their philosophy and practice.

APPENDIX C

STRUCTURE OF BRITISH LOCAL EDUCATION AUTHORITY SCHOOLS

Figure 5 shows the organizational structure of the Local Education Authority supported schools. Overall, the total educational system provides for inclusion into this structure in modified ways the public or partly-public-partly-state-supported schools, but none of these were observed and this basic structure suffices for explanatory purposes within this study.

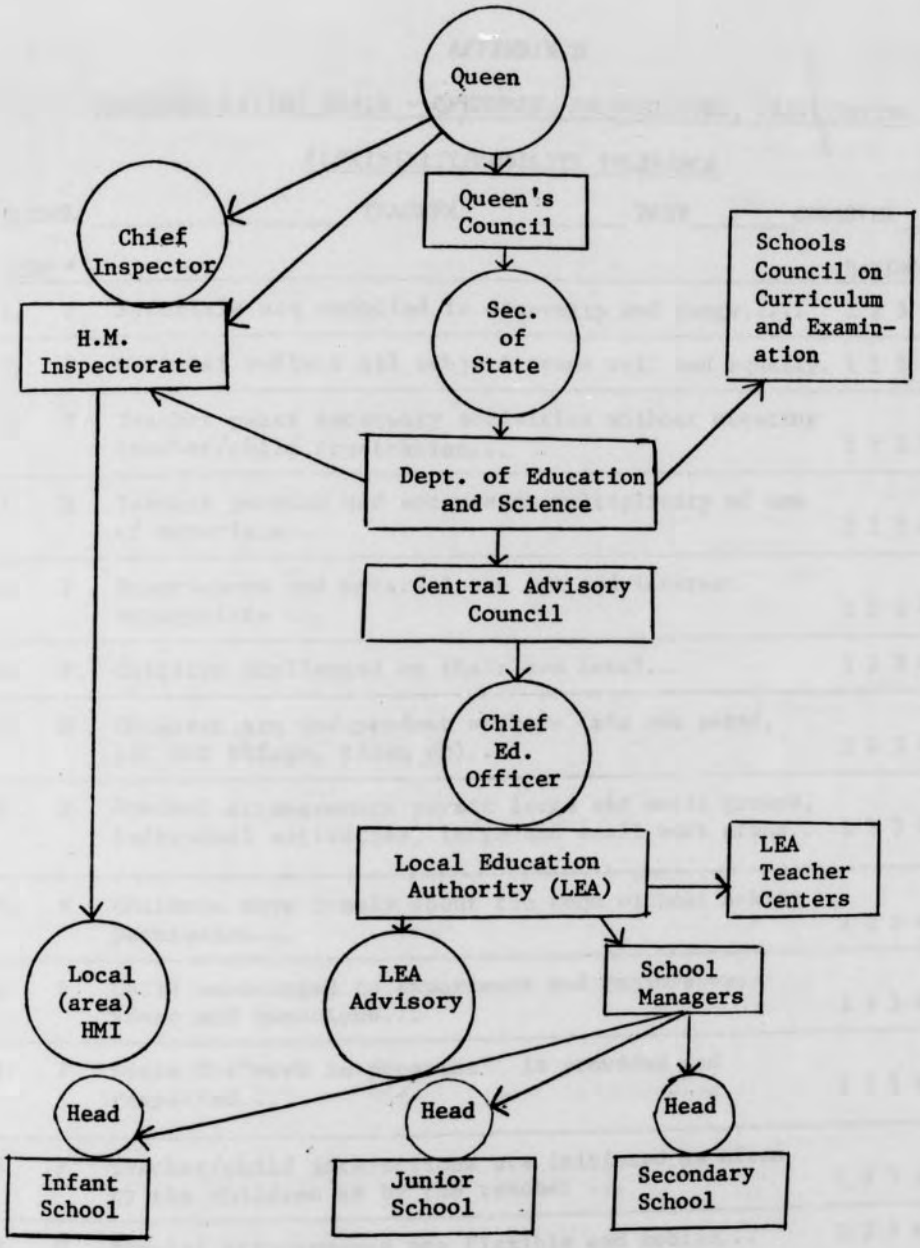

Figure 5

Administrative Authority Lines in the British Educational System

APPENDIX D

OBSERVER RATING SCALE - OPENNESS, PROVISIONING, FACILITATING, FLEXIBILITY/MOBILITY TOLERANCE

SCHOOL _____ TEACHER _____ DATE _____ OBSERVER _____

ITEM *			RATING
1.	P	Materials are supplied in diversity and range,....	1 2 3 4
2.	P	Material reflect all subject areas well and equally.	1 2 3 4
3.	F	Teacher paces necessary activities without creating teacher/child frustration...	1 2 3 4
4.	M	Teacher permits and encourages multiplicity of use of materials...	1 2 3 4
5.	P	Experiences and material are age and interest appropriate ...	1 2 3 4
6.	F	Children challenged at their own level...	1 2 3 4
7.	M	Children are independent workers (mix own paint, get out things, clean up)...	1 2 3 4
8.	P	Spacial arrangements permit large and small groups, individual activities, large and small work areas..	1 2 3 4
9.	M	Children move freely about the room without asking permission...	1 2 3 4
10.	F	Child encouraged to experiment and explore own ideas and questions...	1 2 3 4
11.	P	Space for"work in progress" is provided and respected...	1 2 3 4
12.	F	Teacher/child interactions are initiated as often by the children as by the teacher ...	1 2 3 4
13.	M	Spacial arrangements are flexible and mobile...	1 2 3 4
14.	F	Child's work kept, valued, displayed, and used by child and teacher ...	1 2 3 4
15.	P	Activity areas are attractive, inviting, utilitarian	1 2 3 4

ITEM	*		RATING
16.	M	Children are allowed to leave the room for other areas of the building and yard for educational purposes...	1 2 3 4
17.	F	Teacher generally works with individuals or small groups, not whole group...	1 2 3 4
18.	P	Books are supplied in diversity and profusion, with paperbacks and short books and not all large sets only...	1 2 3 4
19.	F	Teacher does not abdicate her adult authority and responsibilities...	1 2 3 4
20.	M	Time schedules are flexible...	1 2 3 4
21.	F	Teacher shows respect and encouragement of learning process and not just correct answers..errors are part of the learning process to gain further learning...	1 2 3 4
22.	P	Materials are readily accessible, safe, and in useable, complete condition...	1 2 3 4
23.	F	Teacher observes child's specific work and asks immediate experience-based questions (to focus, prompt, integrate, extend, clarify or promote critical awareness in child's learning)...	1 2 3 4
24.	M	Children exhibit individual styles of working which are respected by the teacher...	1 2 3 4
25.	M	There is evidence children use non-school areas for study (field trips, environmental studies, etc.)	1 2 3 4
26.	F	Child supportive responses are used in interactions (including using child's name to address him and using respect indicators of 'please', 'thank you')	1 2 3 4
27.	P	Common environmental materials available and used...	1 2 3 4
28.	F	Conflict and misbehavior are recognized and worked out in the class without reprisals, negating or exclusion...	1 2 3 4
29.	M	Varied skills and subject areas integrated into interest work...	1 2 3 4

ITEM	*		RATING
30.	M	Varied activities occur simultaneously...	1 2 3 4
31.	F	More student products displayed than teacher products.	1 2 3 4
32.	P	Spacial arrangements allow for quiet and noisey activities and spaces for child privacy respectfully	1 2 3 4
33.	P	Displays, materials, facilities are at child level.	1 2 3 4
34.	M	Students do not have their own individually assigned desks...	1 2 3 4
35.	F	Teacher listens attentively to the children...	1 2 3 4
36.	M	Children help one another ...	1 2 3 4
37.	F	Expression of imagination, fantasy, and feelings valued...	1 2 3 4
38.	P	Space is divided into activity areas...	1 2 3 4
39.	M	Children generally group and regroup by choice, without regard for ability or level...	1 2 3 4
40.	P	Equality of provision between structured and openended materials...	1 2 3 4
41.	M	Children use materials at will as they are needed...	1 2 3 4
42.	P	Activity areas provide variety of potential uses and allow for a range of ability levels...	1 2 3 4
43	F	Child-made books and writings used in the class..	1 2 3 4
44.	M	Talking among children is permitted and encouraged..	1 2 3 4
45.	P	Child's major work is interactive, with concrete materials and experiences...	1 2 3 4
46.	P	Balance between commercial and teacher-child developed materials...	1 2 3 4
47.	F	Teacher is a learner and experiments with materials and ideas herself...	1 2 3 4
48.	P	There are sufficient or adequate amounts of materials for the number of children in the class...	1 2 3 4

ITEM	*		RATING
49.	M	Children generally choose their activities rather than doing teacher assigned activities...	1 2 3 4
50.	F	Teacher makes use of outside resources and other teachers...	1 2 3 4
51.	F	Successful experience provided for each child...	1 2 3 4

Notes and comments...school organization (team, open plan, trad. class... or other), special notes on this classroom or teacher, etc...

*NOTE: P = Provisioning

F = Facilitation

M = Flexibility/Mobility Tolerance

These indications were not on the observer scales but are included here for clarity.

APPENDIX E

TEACHER STANCES

SCHOOL_____ DATE _____

TEACHER _____ OBSERVER_____

1st Sweep						2nd Sweep					
*	O	C	I	N		*	O	C	I	N	
1.						1.					
2.						2.					
3.						3.					
4.						4.					
5.						5.					
6.						6.					
7.						7.					
8.						8.					
9.						9.					
10.						10.					

*NOTE: O = Open stances

C = Closed stances

I = In contact

N = Not in contact

APPENDIX F

STUDENT ENGAGEMENT/STUDENT FOCUS

SCHOOL_____ DATE_____

TEACHER _____ OBSERVER_____

*Note - TAB = Traditional Activity Behavior Focus (ENGAGED)
NAB = Non-Traditional Activity Behavior Focus (ENGAGED)
OFF = Non-Engagement

1st Sweep				2nd Sweep			
*	TAB*	NAB*	OFF*		TAB*	NAB*	OFF*
1.				1.			
2.				2.			
3.				3.			
4.				4.			
5.				5.			
6.				6.			
7.				7.			
8.				8.			
9.				9.			
10.				10.			
11.				11.			
12.				12.			
13.				13.			
14.				14.			
15.				15.			
16.				16.			
17.				17.			
18.				18.			
19.				19.			
20.				20.			
21.				21.			
22.				22.			
23.				23.			
24.				24.			
25.				25.			
26.				26.			
27.				27.			
28.				28.			
29.				29.			
30.				30.			

APPENDIX G

TEACHER/CLASSROOM RATING SCALE ITEM SOURCE LIST

Item (Paraphrased)	Sources
1. Materials diversity + range	a. Walberg and Thomas (1971) - item P1. b. Chittendon and Bussis (1970) pg. 32-36. c. Meisel (1973) p. 115.
2. Materials reflect equal subject coverage	a. Chittendon and Bussis (1970) pg. 40-41.
3. Teacher classroom pacing	a. Chittendon and Bussis (1970) pg 47-48. b. Mattick and Perkins, 1972, pp. 7, 37.
4. Multiplicity of materials use	a. Walberg and Thomas (1971) item P8. b. Chittendon and Bussis (1970), pg. 44-45, 32, 33, c. Meisel (1973) pp. 117-122.
5. Age and interest appropriate materials	a. Mattick and Perkins (1972) pp. 2,3. b. Chittendon and Bussis (1970) pp. 32-36.
6. Children challenged at own level	a. Walberg and Thomas (1971) item P6. b. Mattick and Perkins (1972) p. 2.
7. Children independent workers	a. Walberg and Thomas (1971) item A3. b. Mattick and Perkins (1972) p. 8.
8. Spacial arrangements permit varied groupings and work areas	a. Meisels (1973) pp. 106-107. b. Mattick and Perkins (1972) pp. 4,6.
9. Children move about freely without permission	*a. Walberg and Thomas (1971) item P15. *b. Arlin (1974) item 3.
10. Children encouraged to explore and experiment own ideas	a. Walberg and Thomas(1971) item H4. b. Chittendon and Bussis (1970) pp. 37-40.
11. "Work in Progress" space provided and respected.	a. Chittendon and Bussis (1970) pp. 44-45. b. Mattick and Perkins (1972) p. 112.

Item (Paraphrased)	Sources
12. Teacher/child interactions equally initiated by child	*a. Arlin (1974) item 17. b. Mattick and Perkins (1972) pp. 21-22.
13. Flexible, mobile spacial arrangements	a. Walberg and Thomas (1971) item P13. b. Meisel (1973) pp. 106-107.
14. Child's work kept, valued, displayed, used by child and teacher	a. Walberg and Thomas (1971) items P28, E6. b. Chittendon and Bussis (1970) p. 45. c. Mattick and Perkins (1972)
15. Activity areas attractive, inviting, utilitarian	a. Walberg and Thomas (1971) item P11. b. Chittendon and Bussis (1970) pp. 35, 36.
16. Use of other parts of building and yard educationally by children	a. Walberg and Thomas (1971) item P14. b. Arlin (1974) item 9.
17. Teacher works with small groups or individuals predominately	a. Walberg and Thomas (1971) item P21. b. Arlin (1974) item 12. c. Evans (1971) item 8.
18. Diversity and profusion of books	a. Walberg and Thomas (1971) item P2. b. Mattick and Perkins (1972) p. 8. c. Chittendon and Bussis (1970) pp 33-36.
19. Teacher maintains her authority and responsibility	a. Evans (1971) item 37. b. Chittendon and Bussis (1970) pp. 47-48. c. Walberg and Thomas (1971) item H11. d. Mattick and Perkins (1972) p. 8.
20. Flexible time schedules	a. Walberg and Thomas (1971) item P19. b. Mattick and Perkins (1972) pp. 2, 5. c. Arlin (1974) item 10.
21. Teacher respects and encourages learning process - errors part of learning	a. Walberg and Thomas (1971) items D3, H17. b. Chittendon and Bussis (1970) pp. 39-40. c. Mattick and Perkins (1972) p. 3.

Item (Paraphrased)	Sources
22. Readily accessible, safe, complete, useable materials	a. Walberg and Thomas (1971) item P5. b. Mattick and Perkins (1972) p. 2. c. Arlin (1974) item 4. d. Chittendon and Bussis (1970) pp. 35-36. e. Evans (1971) item 24.
23. Teacher observes specific work and asks immediate experience-based questions	a. Smith (1969) p.11. b. Chittendon and Bussis (1970) pp. 38-40. c. Evans (1971) items 28, 33, 41, 48.
24. Individual work styles respected	a. Walberg and Thomas (1971) items H5, H1. b. Chittendon and Bussis (1970) p. 45. c. Mattick and Perkins (1972) pp. 3, 6, 7.
25. Use of non-school areas for study	a. Plowden Report (1967). b. Mattick and Perkins (1972) pp. 7, 12, 32.
26. Child supportive responses used in interactions	a. Mattick and Perkins (1972) p. 3. b. Good, Brophy, Sikes et al c. Smith (1969) pp. 28-31.
27. Common environmental and junk materials available and used	a. Walberg and Thomas (1971) item P4. b. Arlin (1974) item 4. c. Chittendon and Bussis (1970) pp. 32-34.
28. Conflict and misbehavior used constructively	a. Walberg and Thomas (1971) item H10. b. Arlin (1974) item 16. c. Mattick and Perkins (1972) p. 4.
29. Integrated subject work	a. Plowden Report (1967) b. Weber (1971) p. 87. c. Meisel (1973) pp. 112, 113-116. d. Evans (1971) item 4. e. Taylor (1971) p. 53.
30. Varied simultaneous activities	a. Walberg and Thomas (1971) item P16. b. Arlin (1974) item 10 c. Taylor (1971) p. 53. d. Weber (1971) p. 87. e. Meisel (1973) pp. 112-113.

Item	(Paraphrased)	Sources
31.	Predominence of student products displayed	a. Chittendon and Bussis (1970) pp. 45, 36.
32.	Spacial arrangements allow for quiet space and child privacy	a. Mattick and Perkins (1972) pp. 1,6.
33.	Child level facilities, materials, displays	a. Mattick and Perkins (1972) pp. 2,12. b. Chittendon and Bussis (1970) p. 45.
34.	No assigned desks	*a. Walberg and Thomas (1971) item P10. *b. Arlin (1974) item 2 c. Meisel (1973) p. 107.
35.	Teacher listens attentively to children	a. Chittendon and Bussis (1970) pp. 44-45. b. Mattick and Perkins (1972) pp. 18, 34.
36.	Children help each other	*a. Walberg and Thomas (1971) item P18. *b. Arlin (1974) item 15. c. Mattick and Perkins (1972) pp. 4, 40.
37.	Imagination, feelings, fantasy expressed and valued	a. Walberg and Thomas (1971) items H6, D4. b. Chittendon and Bussis (1970)
38.	Space divided into activity areas	*a. Walberg and Thomas (1971) item P9. *b. Arlin (1974) item 1 c. Meisel (1973) p.110.
39.	Children group by choice	a. Walberg and Thomas (1971) P22, P23. b. Mattick and Perkins (1972) p. 41. c. Meisel (1973) p.128. d. Arlin (1974) item 7.
40.	Equal structured and open-ended materials	a. Chittendon and Bussis (1970) pp. 33-36. b. Mattick and Perkins (1972) p. 2 c. Piaget
41.	Children use materials at will as needed	a. Walberg and Thomas (1971) item P7. b. F. Hawkins (1969) p. 26. c. Mattick and Perkins (1972) p. 40. d. Arlin (1974) item 6.

Item	(Paraphrased)	Sources
42.	Variety of potential uses and range of ability levels in activity areas	a. Walberg and Thomas (1971) item P12. b. Chittendon and Bussis (1970) pp. 32-36. c. Meisel (1973) pp. 107-110, 114, 115.
43.	Child-made books, writings used in class	a. Chittendon and Bussis (1970) p. 45. b. Plowden Report (1967) c. Weber (1971)
44.	Talking permitted and encouraged between children	a. Walberg and Thomas (1971) item P17. b. Arlin (1974) item 14 c. Plowden (1967)
45.	Child's major work concrete, experiential, interactive	a. Walberg and Thomas (1971) items I1, P7, A4. b. Arlin (1974) item 14. c. Meisel (1973) pp. 108-109, 122-123. d. Piaget e. Mattick and Perkins (1972) p. 7.
46.	Balance of commercial and hand made materials	a. Walberg and Thomas (1971) item P3. b. Chittendon and Bussis (1970) p. 45.
47.	Teacher a learner - experiments with ideas and materials herself	a. Walberg and Thomas (1971) items SP1, SP2, S2, S3. b. Chittendon and Bussis (1970) p. 33. c. Mattick and Perkins (1972) p. 4.
48.	Sufficient or adequate amounts of materials	a. Mattick and Perkins (1972) pp. 46-47.
49.	Children choose activities	a. Walberg and Thomas (1971) item P20. b. Arlin (1974) item 8. c. Meisel (1973) pp. 104-106. c. Evans (1971) item 7.
50.	Teacher uses outside help and other teachers	a. Walberg and Thomas (1971) items S5, S4. b. Chittendon and Bussis (1970) p. 42. c. Mattick and Perkins (1972) p. 4.
51.	Successful experiences for each child	a. Mattick and Perkins (1972) p. 6. b. Chittendon and Bussis (1970) pp. 33-36, 37-39, 44-45.